

Service Manual

ORDER NO.
ARP3188

MEDIA RECEIVER

PDP-R04G

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R04G	TLDFR	AC110-240V	

● **This service manual should be used together with the following manual(s):**

Model No.	Order No.	Remarks
PDP-R04E/WYVI6	ARP3179	

- **For SPECIFICATIONS and PANEL FACILITIES, refer to the operating instructions.**
- **Please connect it to the PLASMA DISPLAY PDP-504PG or PDP-434PG, for adjustment and operation inspection.**



For details, refer to "Important symbols for good services".

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The Δ mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ∇ mark on product are used for disassembly.

● Reference Nos. indicate the pages and Nos. in the service manual for the base model.

● For the applying amount of lubricants or glue, follow the instructions in this manual.

(In the case of no amount instructions, apply as you think it appropriate.)

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56×10^1 \rightarrow 561 RD1/4PU $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$ J

47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$ J

0.5 Ω \rightarrow R50 RN2H $\begin{bmatrix} R & 5 & 0 \end{bmatrix}$ K

1 Ω \rightarrow 1R0 RS1P $\begin{bmatrix} 1 & R & 0 \end{bmatrix}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$ F

■ CONTRAST TABLE

PDP-R04G/TLDFR and PDP-R04E/WYVI6 are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			PDP-R04E /WYVI6	PDP-R04G /TLDFR	
P9- 1	NSP	PCB ASSEMBLIES MR MAIN BOARD ASSY	AWV2041	AWV2044	
P9- 5		MR FUKUGOU BOARD ASSY └ FRONT ASSY	AWV2040 AWZ6832	AWV2047 AWZ6815	
P9- 2 P9- 7		NSP	MR AV BOARD ASSY └ AV BOARD ASSY └ REG ASSY	AWV2039 AWZ6813 AWZ6814	AWV2043 AWZ6818 AWZ6833
P9- 8	⚠	POWER SUPPLY Unit	AXY1065	AXY1081	
P9- 9	⚠	PC Card Module	AXY1073	Not used	
P7- 1	⚠	PACKING SECTION Operating Instructions (English/French/German) Operating Instructions (English/Chinese/Spanish/Portuguese) Operating Instructions (Italian/Dutch/Swedish/Spanish) Operating Instructions about HDMI (English/French/German/Italian/Dutch/Swedish/Spanish)	ARE1368 Not used	Not used ARE1369	
P7- 2 P7- 3		Operating Instructions (Italian/Dutch/Swedish/Spanish) Operating Instructions about HDMI (English/French/German/Italian/Dutch/Swedish/Spanish)	ARC1520 ARE1375	Not used Not used	
P7- 4 P7- 5 P7- 8 P7-10 P7-11		Remote Control Unit Battery Cover Power Cord User Card A User Card B	AXD1481 AZN7919 ADG1214 ARY1139 ARY1140	AXD1479 AZA7424 Not used Not used Not used	
P7-20 P7-24 P7-28		Carton Vinyl Bag User Card C	AHD3171 AHG1340 ARY1142	AHD3172 AHG1310 Not used	
P9-17 P9-18 P9-24 P9-29 P9-30		EXTERIOR SECTION Flexible Cable (J208) Flexible Cable (J205) 6P Housing Wire (J111) Front Chassis Terminal Panel	ADD1226 ADD1243 ADX2852 ANB1864 ANC2353	Not used ADD1212 Not used ANB1862 ANC2354	
P9-33 P9-40 P9-55 P9-62 P9-63		SR Holder Front Shield C FFC Cushion Scart Shield S Scart Shield W	ANG2581 ANG2640 AEB1395 ANG2636 ANG2643	ANG2567 ANG2641 Not used Not used Not used	

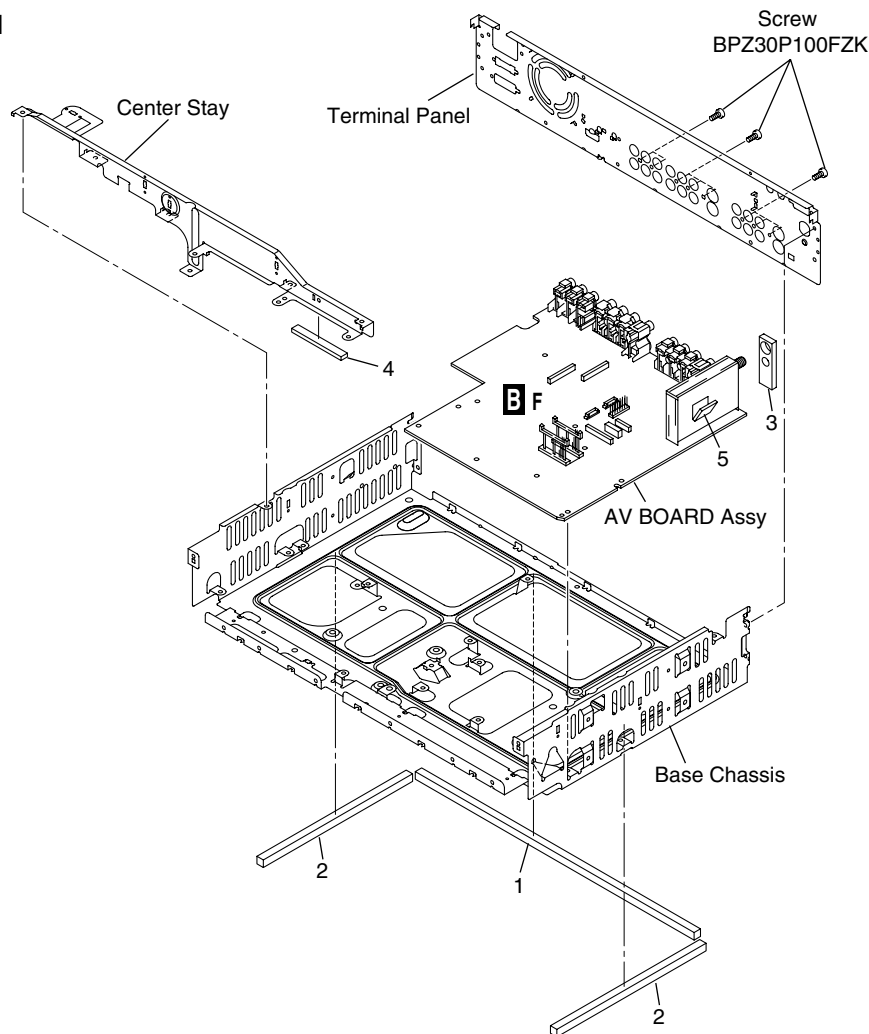
Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			PDP-R04E /WYVI6	PDP-R04G /TLDFR	
P9-64	⚠	Shield Plate SF	ANG2649	Not used	
P9-65	⚠	PC Shield	ANG2578	Not used	
P9-69		Clamp	AEC1884	Not used	
P9-71		PC Guide	AMR3393	Not used	
P9-75		Eye Catching Label	AAX3011	Not used	
P9-85		Screw	ABZ30P180FMC	Not used	
		Screw (Rear of PC Card)	BBZ30P060FZK	Not used	
	⚠	Gasket J	Not used	ANK1728	No. 1
	⚠	Gasket K	Not used	ANK1729	No. 2
	⚠	Gasket L	Not used	ANK1730	No. 3
	⚠	FFC Cushion S	Not used	AEB1398	No. 4
	⚠	Gasket E	Not used	ANK1721	No. 5
NSP		Label (Black 15)	AAX2984	Not used	
NSP		Label (Yellow 8)	AAX3070	Not used	
		Label (Yellow 16)	AAX3071	Not used	
FRONT PANEL SECTION					
P11- 2		PC Spring	ABH1112	Not used	
P11- 6		Front Panel Assy	AXG1004	AXG1005	
P11-15		Door Inner Cover	AAK2808	AAK2802	
P11-17		Front Panel A	AMB2772	AMB2773	
P11-21		Sealing Sheet	AAL2449	AAL2450	
P11-27		PC Card Door	AMR3365	Not used	

Notes : The numbers in the remarks column correspond to the numbers on the “EXPLODED VIEWS”.

For PCB ASSEMBLIES, Refer to “CONTRAST OF PCB ASSEMBLIES”, “PCB PARTS LIST”, “2. SCHEMATIC DIAGRAM” and “3. PCB CONNECTION DIAGRAM”.

EXPLODED VIEWS

EXTERIOR SECTION



■ CONTRAST OF PCB ASSEMBLIES

AF MR MAIN BOARD ASSY

AWV2044 and AWV2041 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWV2041	AWV2044	
	IC7151 C7153, C7155-C7157 R7155, R7157, R7159 R7383, R7489 R7384, R7427, R7471, R7472 R7470	MBM29PL3200BE70PFV CKSSYF104Z16 RS1/16SS472J RS1/16SS0R0J Not used RAB4CQ101J	Not used Not used Not used Not used RS1/16SS0R0J Not used	

BF FRONT ASSY

AWZ6815 and AWZ6832 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWZ6832	AWZ6815	
	D9512, D9513 L9501, L9502 C9501, C9502 C9520-C9522 (47μF/6.3V) C9520-C9522 (10μF/35V) R9501, R9502 R9503 R9559, R9661 R9605 R9660 CN9503 MINI JACK	UDZS5.6B LCTAW560J2520 CEHAT471M10 ACH1357 Not used RS1/16S224J RS1/16S101J Not used RS1/16S102J RS1/16S0R0J AKN1028	Not used Not used Not used Not used ACH1376 Not used Not used RS1/16S0R0J RS1/16S1001F Not used Not used	

DF REG ASSY

AWZ6833 and AWZ6814 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWZ6814	AWZ6833	
	Q8513 C8501, C8503, C8528, C8533 (100μF/6.3V) C8507, C8526, C8531 (22μF/16V) C8536 (47μF/16V) C8537 C8538 (10μF/16V) R8552 CN8502 PLUG (6P) U8510 DD CON UNIT	RN2303 ACH1396 ACH1400 ACH1391 CEHAZL471M16 DCH1165 RS1/16S0R0J KM200NA6 AXY1070	Not used ACH1364 ACH1370 ACH1371 Not used Not used Not used Not used Not used	

PCB PARTS LIST

Mark	No.	Description	Part No.
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B F AV BOARD ASSY

[TUNER BLOCK]

SEMICONDUCTORS

IC7502	MSP3455G
IC7504	PST9246N
IC7501	TDA9818TS
Q7503,Q7504,Q7506,Q7513,Q7522	2SA1586
Q7524,Q7527,Q7528	2SA1586
Q7507	2SC2712
Q7511,Q7517	2SC4082
Q7501,Q7502,Q7505,Q7509,Q7510	2SC4116
Q7512,Q7515,Q7518,Q7521	2SC4116
Q7525,Q7526,Q7530-Q7535	2SC4116
Q7508	2SC4213
Q7537	RN2303
D7504	1SS355
D7502,D7503	1SS356
D7501	UDZS33B

COILS AND FILTERS

F 7502 CERAMIC TRAP	BTF1121
L7501,L7502	LCTAW100J2520
L7512,L7513	LCTAW150J2520
L7514	LCTAW4R7J2520
L7511	LCTAW8R2J2520
L7520	LCTAWR22J2520
L7516	LCTAWR27J2520
L7505,L7507	LCTAWR68J2520
F 7506 SAW FILTER	VTF1177
F 7503 SAW FILTER	VTF1178
F 7504 IF TRAP FILTER	VTF1180
F 7505 IF TRAP FILTER	VTF1181
F 7501 TRAP FILTER	VTF1183
L7504 VCO COIL	VTL1164

CAPACITORS

C7507 (220uF/10V)	ACH1368
C7552 (3.3uF/50V)	ACH1385
C7542 (47uF/16V)	ACH1391
C7509,C7525,C7549,C7591,C7599 (100uF/16V)	ACH1394
C7501 (10uF/50V)	ACH1402
C7564,C7573,C7581	CCSRCH102J50
C7515	CCSRCH120J50
C7568	CCSRCH121J50
C7578	CCSRCH181J50
C7567	CCSRCH470J50
C7556,C7558	CCSRCH560J50
C7576	CCSRCH680J50
C7530	CCSRCH820J50
C7569,C7570	CCSRCJ3R0C50
C7537,C7539	CKSQYB225K10
C7502,C7520,C7522,C7523	CKSRYB102K50
C7534,C7535,C7579,C7580	CKSRYB102K50
C7514,C7524,C7528,C7536,C7545	CKSRYB103K50
C7554,C7572,C7584	CKSRYB103K50

Mark	No.	Description	Part No.
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C7541	CKSRYB104K16
C7503	CKSRYB105K10
C7559,C7561,C7588	CKSRYB152K50
C7590	CKSRYB221K50
C7504,C7505,C7526	CKSRYB222K50

C7540	CKSRYB224K10
C7518	CKSRYB332K50
C7557,C7560,C7583,C7589	CKSRYB471K50
C7563,C7571	CKSRYB472K50
C7582	CKSRYF103Z50

C7575	CKSRYF104Z16
C7506,C7510,C7513,C7527,C7531	CKSRYF104Z50
C7547,C7550,C7551,C7555,C7577	CKSRYF104Z50
C7511,C7546,C7548,C7553,C7562	DCH1165
C7587 (10uF/16V)	DCH1165

RESISTORS

R7568	RD1/2LMF100J
R7524	RS1/16S2203F
R7554	RS1/16S2700F
R7544,R7552	RS1/16S2702F
R7504	RS1/16S3302F

R7655,R7656	RS1/16S5600F
R7555	RS1/16S6800F
VR7504	CCP1390
VR7502	CCP1398
Other Resistors	RS1/16S###J

OTHERS

△ 3229	GASKET E	ANK1721
X7501	CERAMIC RESONATOR (18.432 MHz)	VSS1189
△ U7501	TV FRONTEND	AXF1119

[AV IO BLOCK]

SEMICONDUCTORS

IC7701	TC74VHC125FT
Q7406,Q7407,Q7706	2SA1586
Q7401,Q7402,Q7409,Q7410	2SC4116
Q7412,Q7413,Q7415,Q7416	2SC4116
Q7403,Q7757	DTA124EUA

Q7404	DTC124EUA
Q7408,Q7411,Q7414	HN1A01FU
D7710	1SS301
D7407-D7412,D7416-D7418	1SS302
D7703	1SS355

D7401-D7406,D7413-D7415	UDZS9.1B
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COILS AND FILTERS

L7403-L7408	LCTAW1R0J2520
L7401,L7402	LCTAW560J2520

CAPACITORS

C7415,C7416 (1.0uF/50V)	ACH1383
C7429,C7433,C7709	CEAT471M10
C7402,C7403,C7405,C7407,C7408	CKSRYB103K50
C7410,C7417,C7424,C7443-C7445	CKSRYB103K50
C7460	CKSRYB103K50

Mark	No.	Description	Part No.
A	C7401,C7406,C7411-C7414,C7426		CKSRYB105K10
	C7428,C7437,C7438,C7440,C7442		CKSRYB105K10
	C7446-C7448		CKSRYB105K10
	C7425,C7427		CKSRYB222K50
	C7404,C7409,C7441		CKSRYB473K16
■	C7431,C7435,C7439,C7449-C7453		CKSRYF104Z50
	C7739,C7765		CKSRYF104Z50
	C7418-C7423,C7430,C7432,C7434		DCH1165
	C7436 (10uF/16V)		DCH1165

RESISTORS

R7431,R7432,R7443,R7444	RS1/10S151J
R7455,R7456	RS1/10S151J
Other Resistors	RS1/16S###J

OTHERS

JA7401,JA7403 6P PIN JACK	AKB1295
JA7402 6P PIN JACK	AKB1297
JA7404,JA7405 2P 4PIN MINIDIN(S)	AKP1234

[AV SW BLOCK]

SEMICONDUCTORS

IC8005	AN15852A
IC8002	CXA2069Q
IC8004	NJM12904V
IC8003	TC4052BFT
IC8001	TC7WH123FU

Q8005,Q8006	2SA1586
Q8021,Q8022,Q8025-Q8027	2SC4116
Q8023	DTA124EUA
Q8024	DTC124EUA
Q8011	HN1C01FU

D8015-D8017	1SS355
D8013,D8014	UDZS9.1B

CAPACITORS

C8005,C8006,C8056 (100uF/16V)	ACH1394
C8014 (22uF/16V)	ACH1400
C8022,C8027	CCSRCH181J50
C8057	CCSRCH270J50
C8019,C8038	CCSRCH681J50

C8002-C8004,C8008,C8009,C8016	CKSRYB105K10
C8050	CKSRYB105K10
C8001,C8013,C8015,C8025,C8026	CKSRYF104Z50
C8031-C8036,C8039,C8042-C8044	CKSRYF104Z50
C8048,C8049,C8052,C8053,C8055	CKSRYF104Z50

C8059	CKSRYF104Z50
C8010,C8012,C8018,C8023,C8024	DCH1165
C8028,C8037,C8040,C8041,C8051	DCH1165
C8060,C8061 (10uF/16V)	DCH1165

RESISTORS

All Resistors	RS1/16S###J
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Mark	No.	Description	Part No.
[AV REG BLOCK]			
SEMICONDUCTORS			
	IC8505,IC8506		PQ05DZ11
	IC8504		PQ09DZ11
	Q8509,Q8514		RN1303
	Q8512		RN2303
	Q8510		SM6K2
	Q8511		TPC8003
	D8509-D8511		1SS355

COILS AND FILTERS

F 8501-F 8504,F 8506,F 8508,F 8510	ATF1194
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CAPACITORS

C8517,C8523 (100uF/6.3V)	ACH1364
C8510,C8515,C8521 (22uF/16V)	ACH1370
C8512 (100uF/25V)	ACH1374
C8511,C8513,C8516,C8518,C8522	CKSRYB103K50
C8524,C8530	CKSRYB103K50

RESISTORS

R8528,R8531	RS1LMF1R0J
R8525	RS1LMF3R3J
Other Resistors	RS1/16S###J

OTHERS

CN8503,CN8504 PLUG 14-P	AKM1237
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[BOARD IF BLOCK]

CAPACITORS

C8653-C8655 (10uF/16V)	DCH1165
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RESISTORS

All Resistors	RS1/16S###J
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OTHERS

CN8652-CN8654 50P CONNECTER	AKM1201
CN8658 12P FFC CONNECTOR	AKM1233
CN8656 PLUG 7-P	KM200NA7

[UIF UCOM BLOCK]

SEMICONDUCTORS

IC8705	24LC01B
IC8702	HD64F3687FP
IC8703	PST9231N
IC8701	TC74VHC08FT
IC8704	TC7W126FU

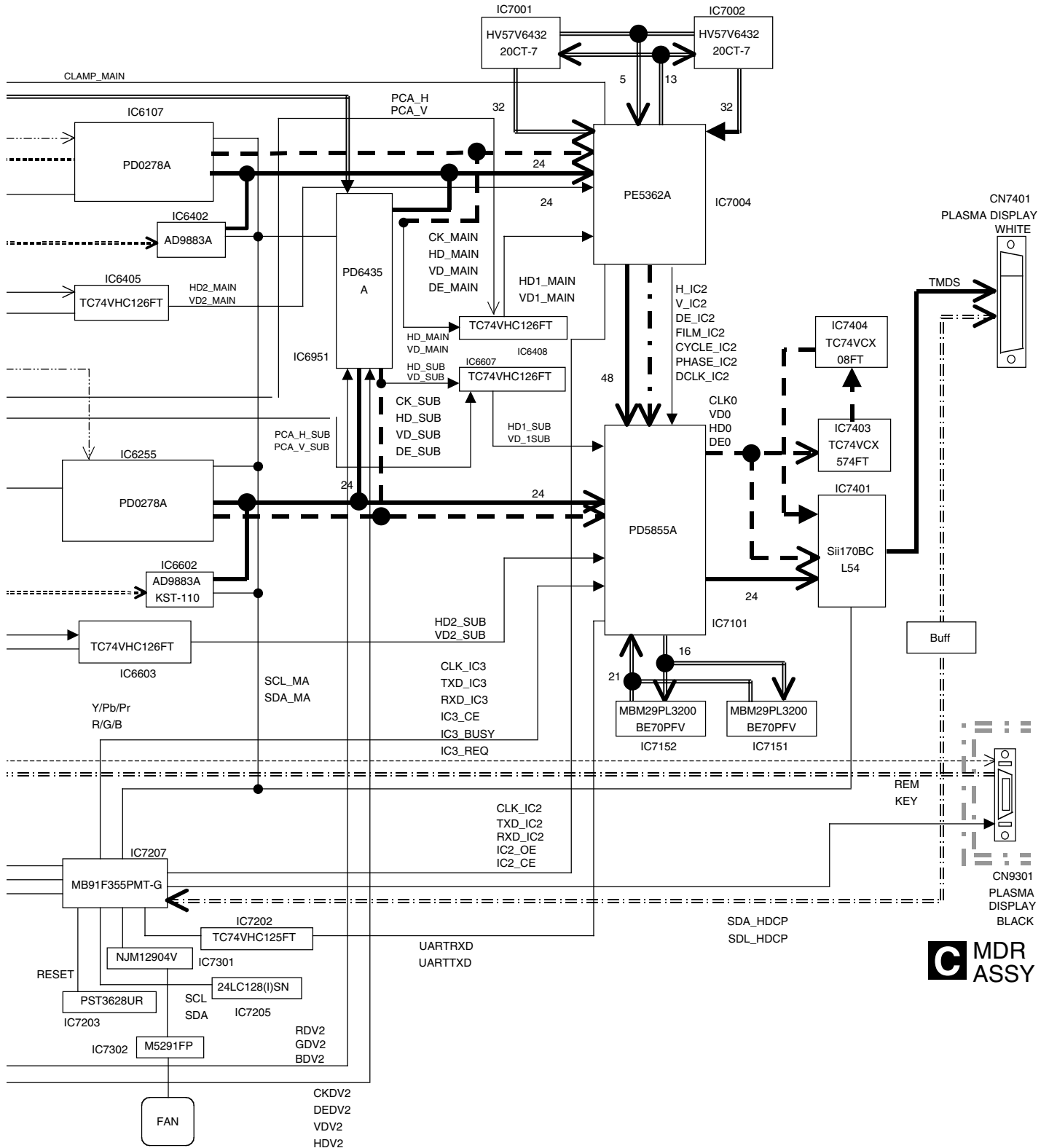
Q8701	2SJ461A
Q8702	RN1303
Q8708	RN2303

CAPACITORS

C8711 (100uF/16V)	ACH1394
C8706,C8707	CCSRCH120J50
C8709	CKSRYB472K50
C8701-C8705,C8708,C8712,C8713	CKSRYF104Z50
C8716 (10uF/16V)	DCH1165

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
RESISTORS				[MEMORY SW BLOCK]			
	R8719		RAB4C101J	SEMICONDUCTORS			
	R8702,R8704,R8720,R8745		RAB4C103J	IC9104		HY57V641620HGT-H	
	Other Resistors		RS1/16S###J	IC9101		MBM29LV160TE-90PFTN	
OTHERS				CAPACITORS			
	CN8701	PLUG 8-P	AKM1225	C9101,C9107,C9108,C9113,C9114		CKSRYF104Z50	
	X8702	CERAMIC RESONATOR	ASS1168	C9119,C9120,C9129		CKSRYF104Z50	
	X8701	CRYSTAL OSCILLATOR (32.768kHz)	ASS1172	RESISTORS			
[TELETEXT BLOCK]				All Resistors		RS1/16S###J	
SEMICONDUCTORS							
	IC8903		NJM2233BM				
	IC8901		PST9230N				
	IC8904		SDA6000				
	IC8906		TA1287FG				
	IC8905		TC74VHC08FT				
	IC8907		TC7SH04FU				
	IC8902		TC7W126FU				
	Q8901,Q8904-Q8906		2SA1586				
	Q8903,Q8909		2SC4116				
	Q8902,Q8910		RN1303				
	D8902		UDZS3.0B				
	D8901		UDZS3.9B				
COILS AND FILTERS							
	L8901		LCTAW270J2520				
CAPACITORS							
	C8906 (100uF/16V)		ACH1394				
	C8916,C8917		CCSRCH150J50				
	C8908		CCSRCH181J50				
	C8901		CCSRCH471J50				
	C8904		CKSRYB102K50				
	C8903		CKSRYB103K50				
	C8926,C8936-C8938,C8940-C8942		CKSRYB104K16				
	C8902,C8905,C8909-C8911		CKSRYF104Z50				
	C8914,C8915,C8918-C8920		CKSRYF104Z50				
	C8923-C8925,C8927-C8929		CKSRYF104Z50				
	C8933-C8935,C8939		CKSRYF104Z50				
	C8907,C8912,C8913 (10uF/16V)		DCH1165				
RESISTORS							
	R8905-R8907,R8922,R8960,R8991		RAB4C101J				
	Other Resistors		RS1/16S###J				
OTHERS							
	CN8901	PLUG 8-P	AKM1225				
	K 8904, K 8905	TEST PIN	AKX9002				
	X8901	CRYSTAL OSCILLATOR	ASS1180				

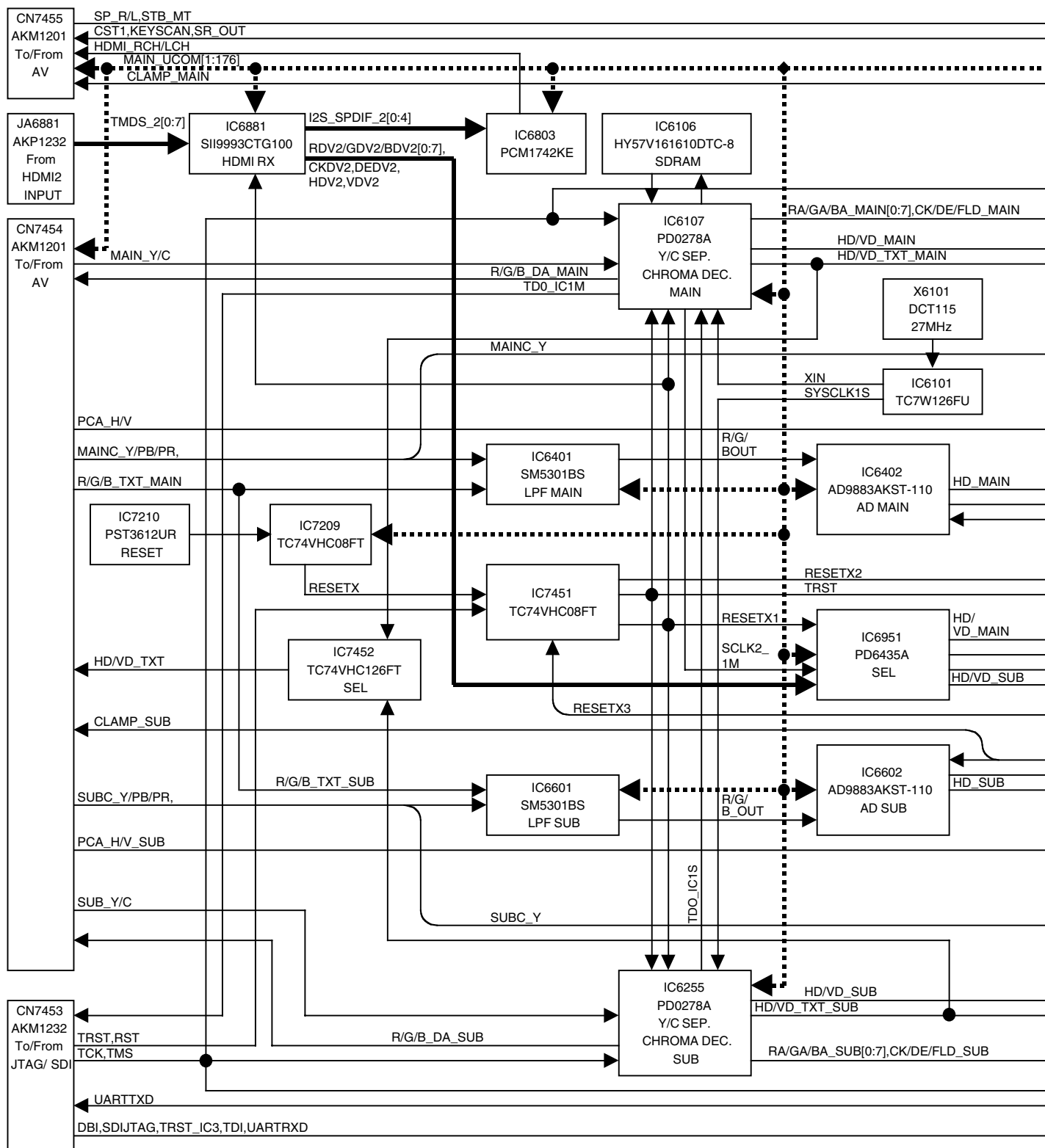
A F MR MAIN BOARD ASSY

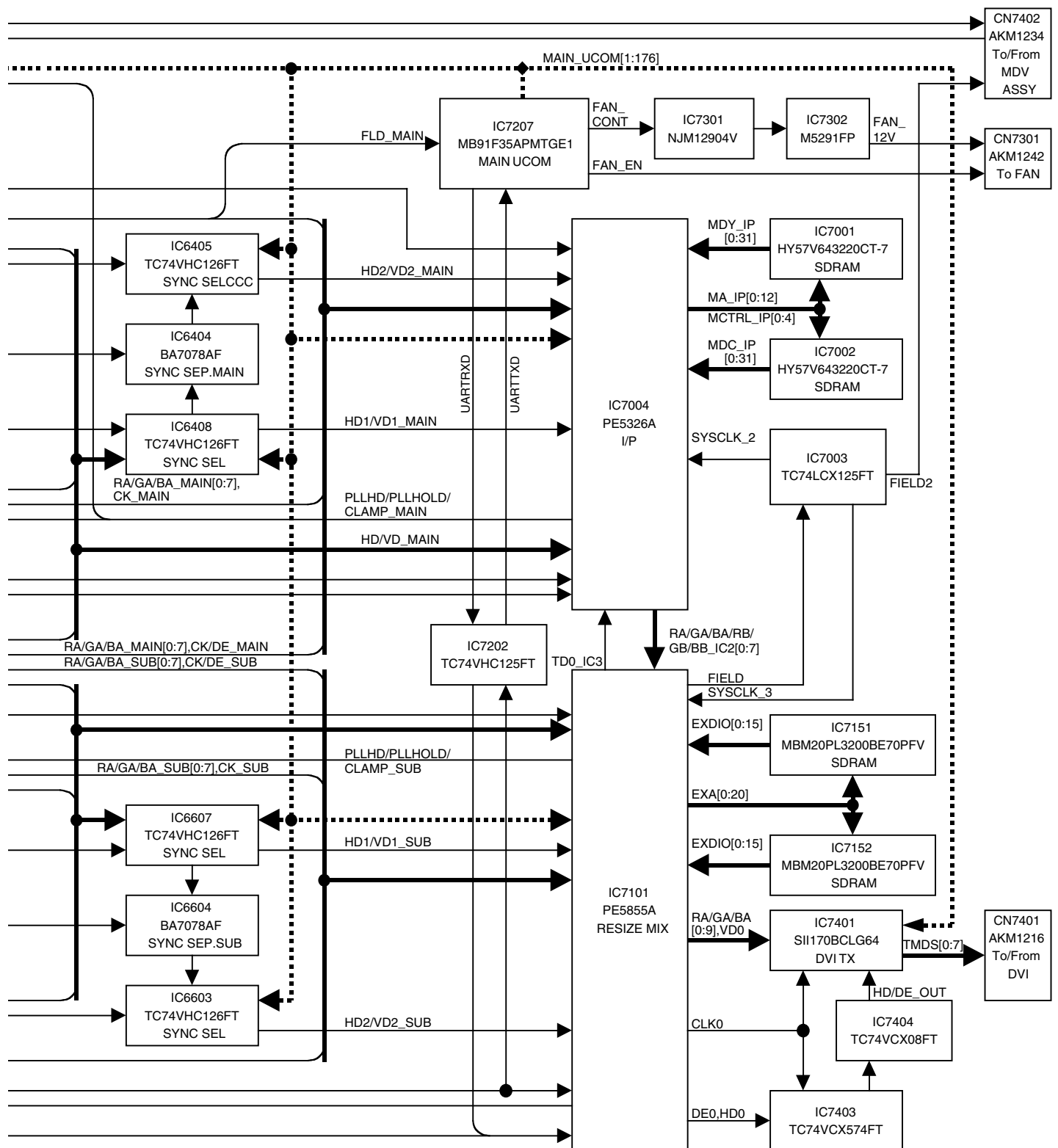


C MDR ASSY

2.1.2 MR MAIN BOAED ASSY

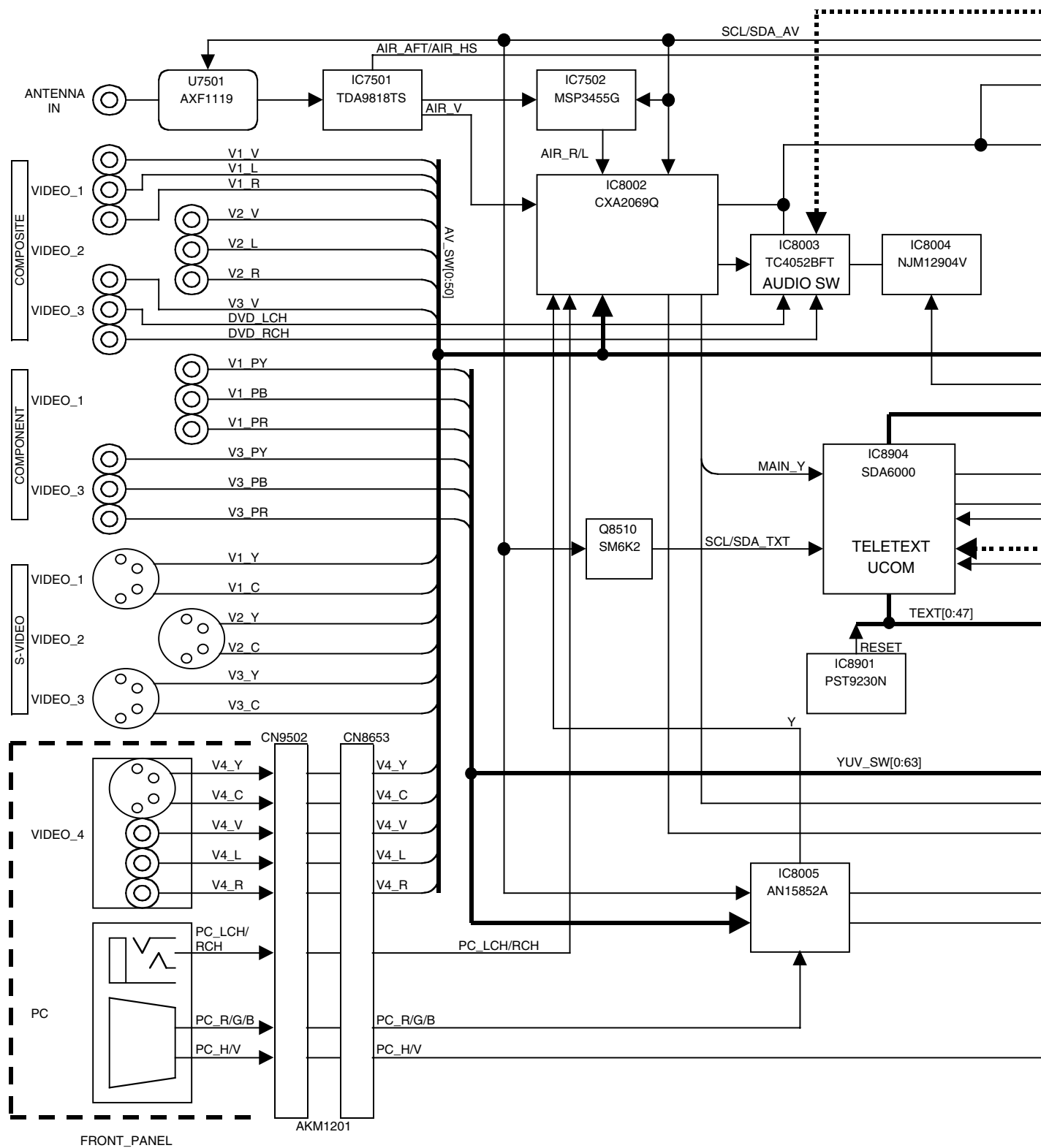
A F MR MAIN BOARD ASSY



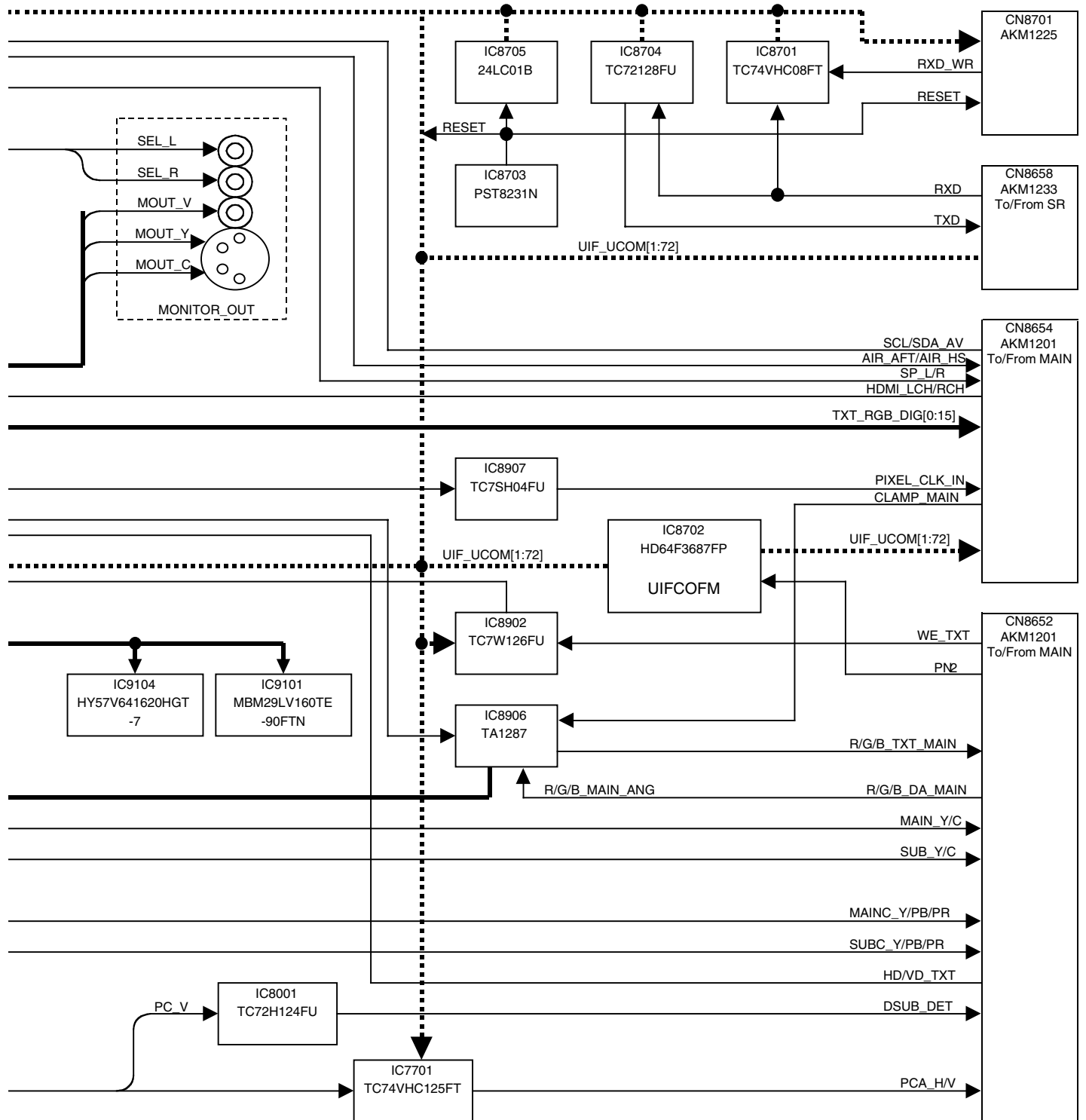


2.1.3 AV BOARD ASSY

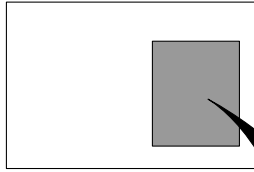
B F AV BOARD ASSY



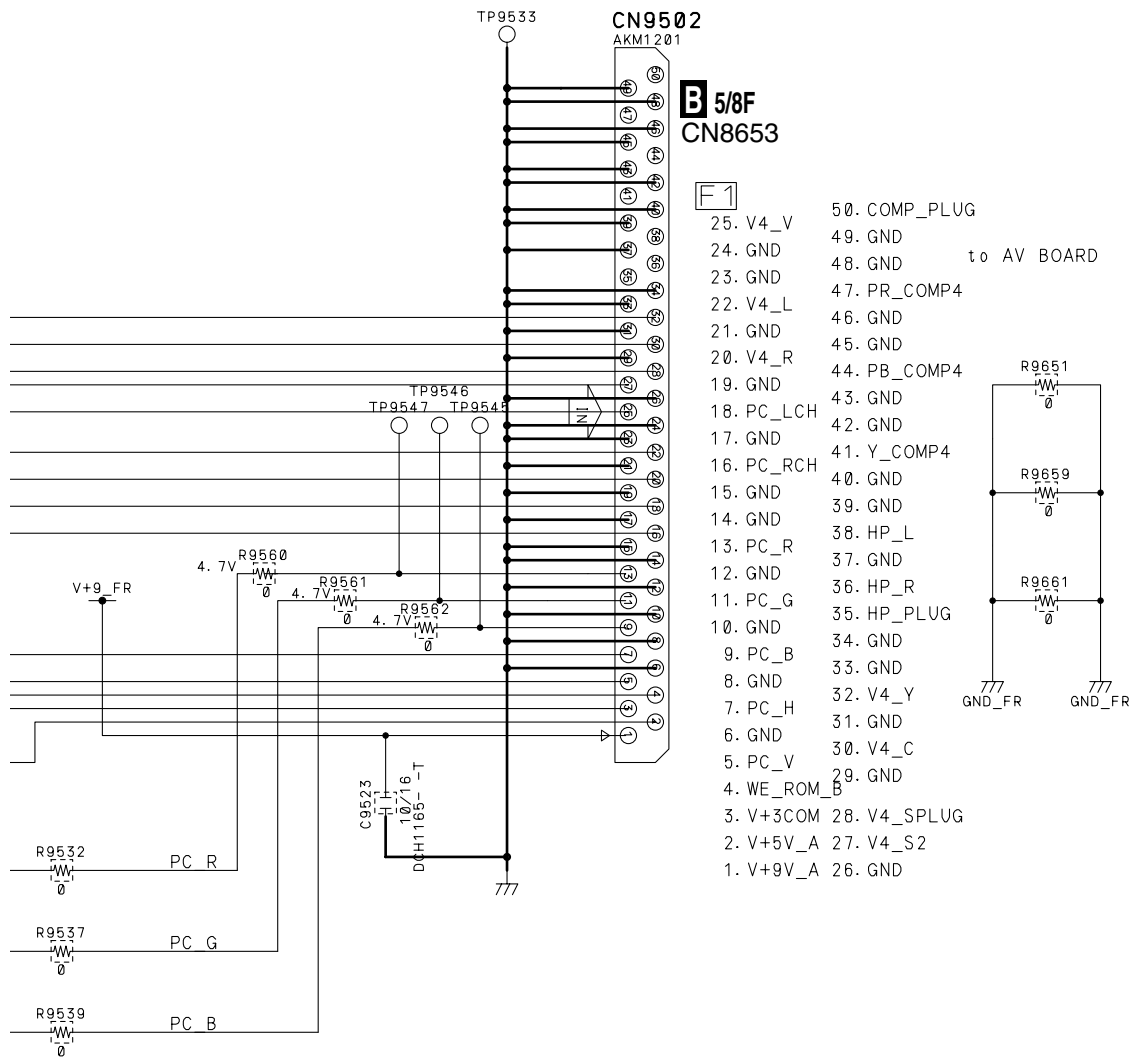
E F FRONT ASSY



2.3 FRONT (1/2) ASSY



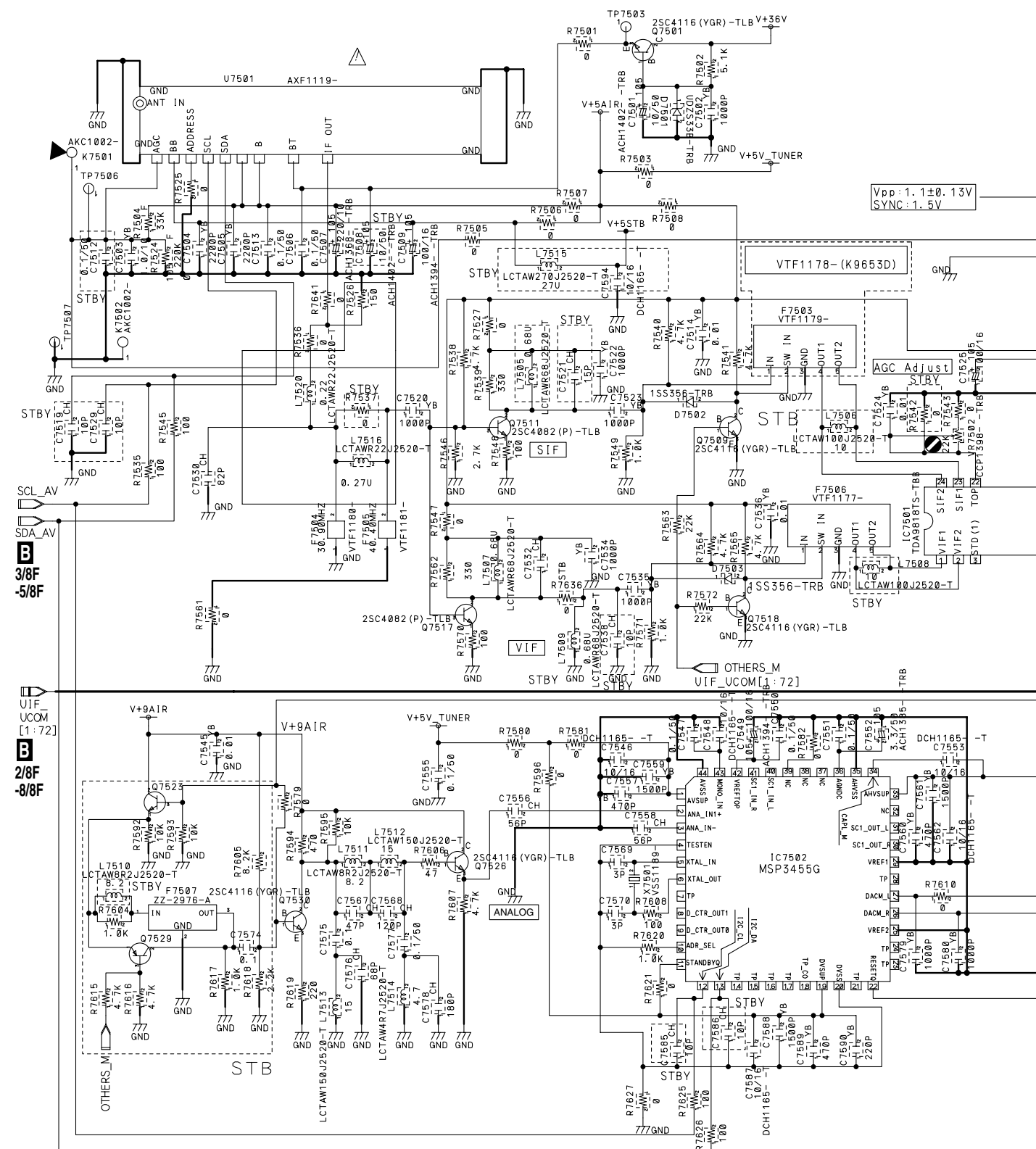
E 1/2F FRONT ASSY (AWZ6815)
● FRONT BLOCK



E 1/2F

B 1/8F AV BOARD ASSY (AWZ6818)
● TUNER BLOCK

B 1/8F



NOTES

RESISTOR Ω CAPACITORS μF

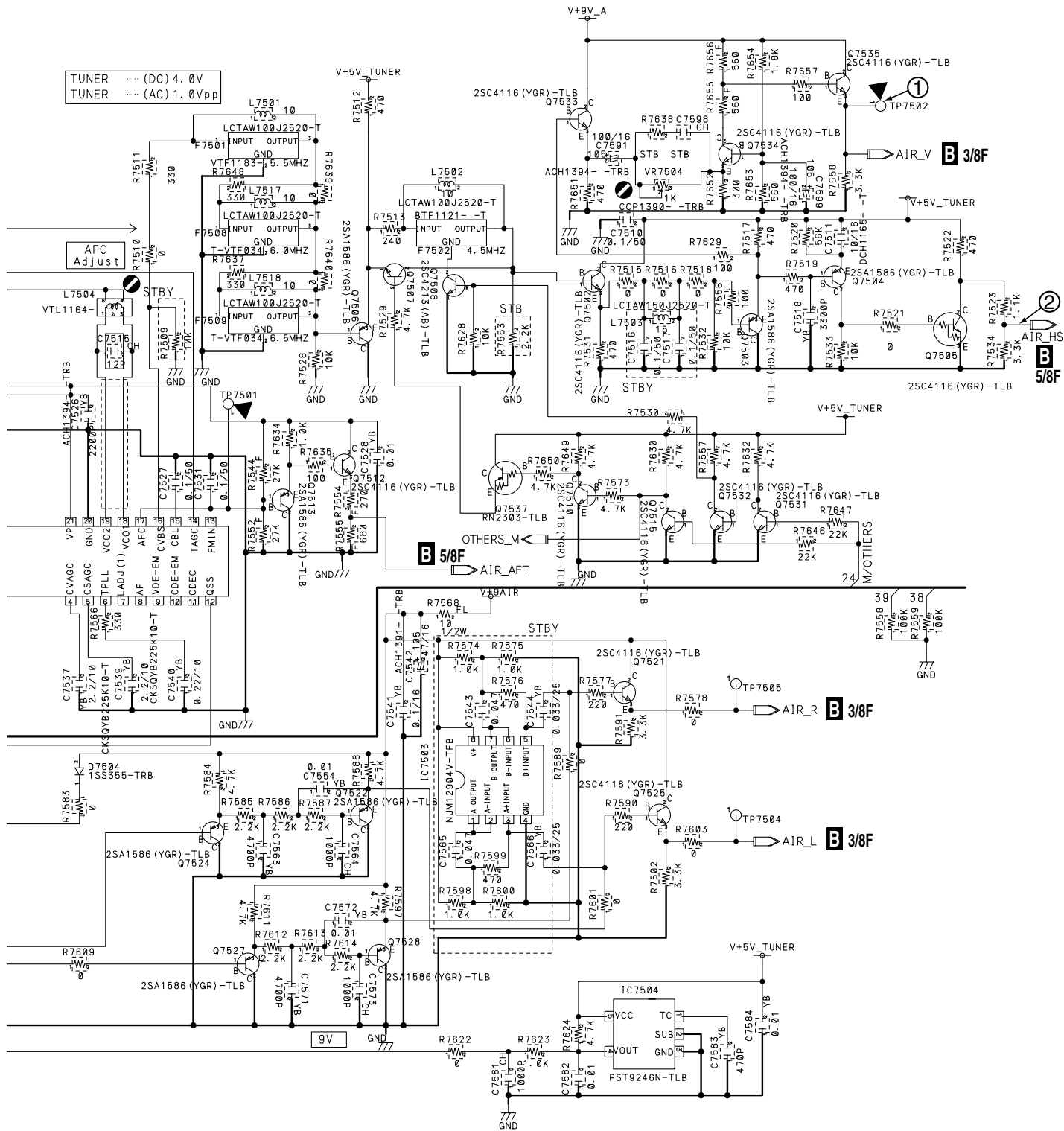
44 CKSRYF***Z**-T

$\bar{H} \bar{H}^{YB}$ CKSRYB***K**-T

$$\bar{H}^T \bar{H}^T CH \quad CCSRCH***J**-T$$

CEVW***M**-TRB

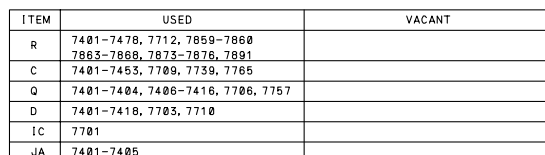
~~4~~ CEAT***M**



	PDP-R04G/TLDFR
R7562	330
R7521	0
R7546	2.7K
R7638	STB
R7511	330
C7598	STB
C7532	STB
Q7505	2SC4116 (YGR)
L7516	0.27μ

ITEM	USED	VACANT
R	7501-7558	7509, 7513, 7529, 7530, 7537, 7542, 7551, 7563, 7567-7569, 7561, 7563, 7574-7576, 7592, 7593, 7598-7600, 7604, 7608, 7615, 7619, 7632, 7633, 7638, 7648, 7649
C	7501-7599	7508, 7512, 7516, 7517, 7519, 7521, 7529, 7532-7533, 7538, 7543, 7544, 7565, 7566, 7567, 7574, 7585, 7592-7595, 7597-7598
Q	7501-7537	7507, 7508, 7515, 7523, 7529, 7531, 7532
D	7501-7504	7503
L	7501-7519	7502, 7503, 7506, 7508-7510, 7515, 7516, 7518
VR	7502-7504	7503
F	7501-7506, 7510	7502
X	7501	
K	7501, 7502	

B 1/8F

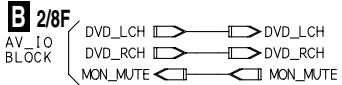


2.6 AV BOARD ASSY (3/8)

B 3/8F AV BOARD ASSY (AWZ6818)

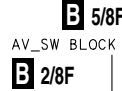
B 2/8F BOARD_IF 5/8F AV_IO BLOCK

● AV SW BLOCK

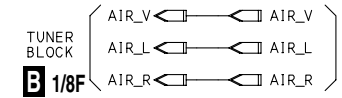


B 1/8F, 2/8F, 4/8F-8/8F

TUNER BLOCK
REG BOARD_IF
TELETEXT IF_UCOM
MEMORY_SW AV_IO



B 2/8F



B 1/8F

B 2/8F

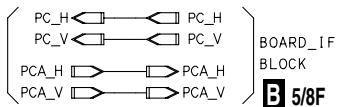
B 1/8F, 4/8F, 5/8F

TUNER BLOCK
REG BOARD_IF

TO MON_OUT
SEL_R
SEL_L

B 2/8F, 7/8F

AV_IO BLOCK
TELETEXT



B 5/8F

AV_IO BLOCK

B 2/8F

NOTE

RESISTOR Ω

RS1/16S***J-T

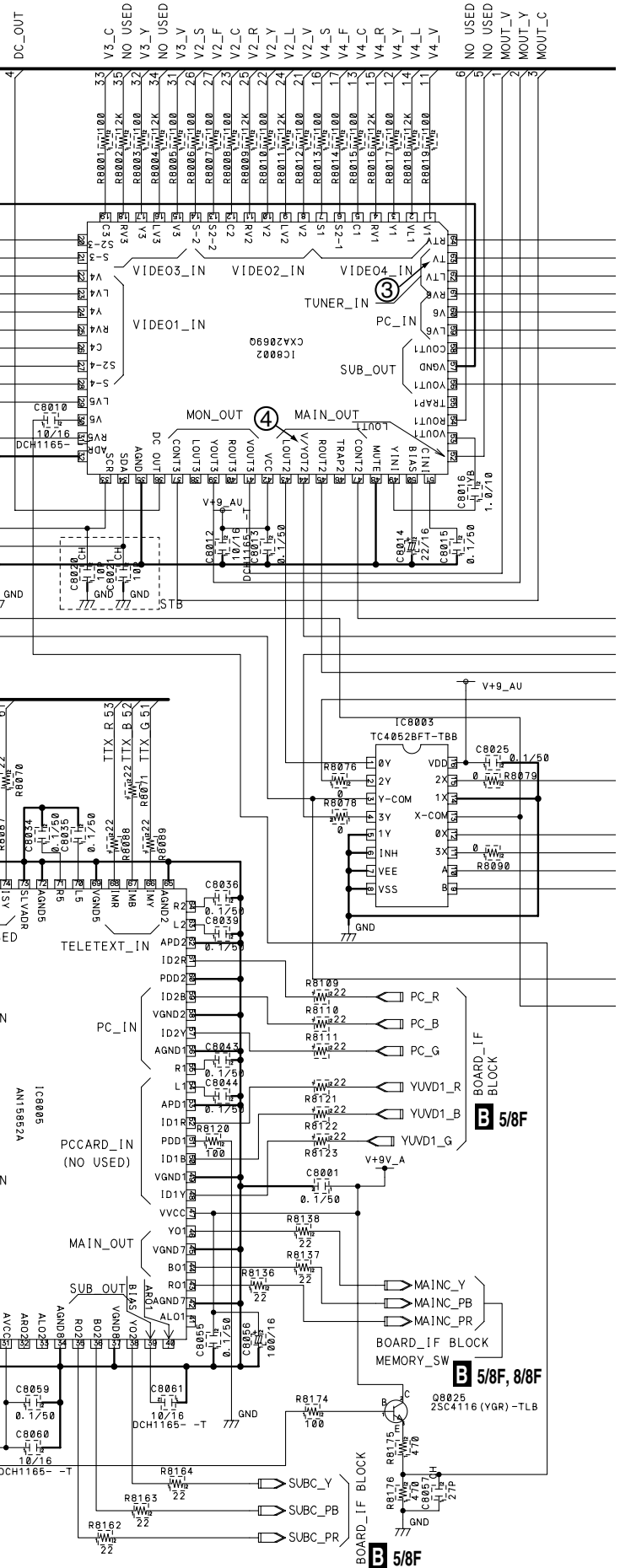
CAPACITORS μF

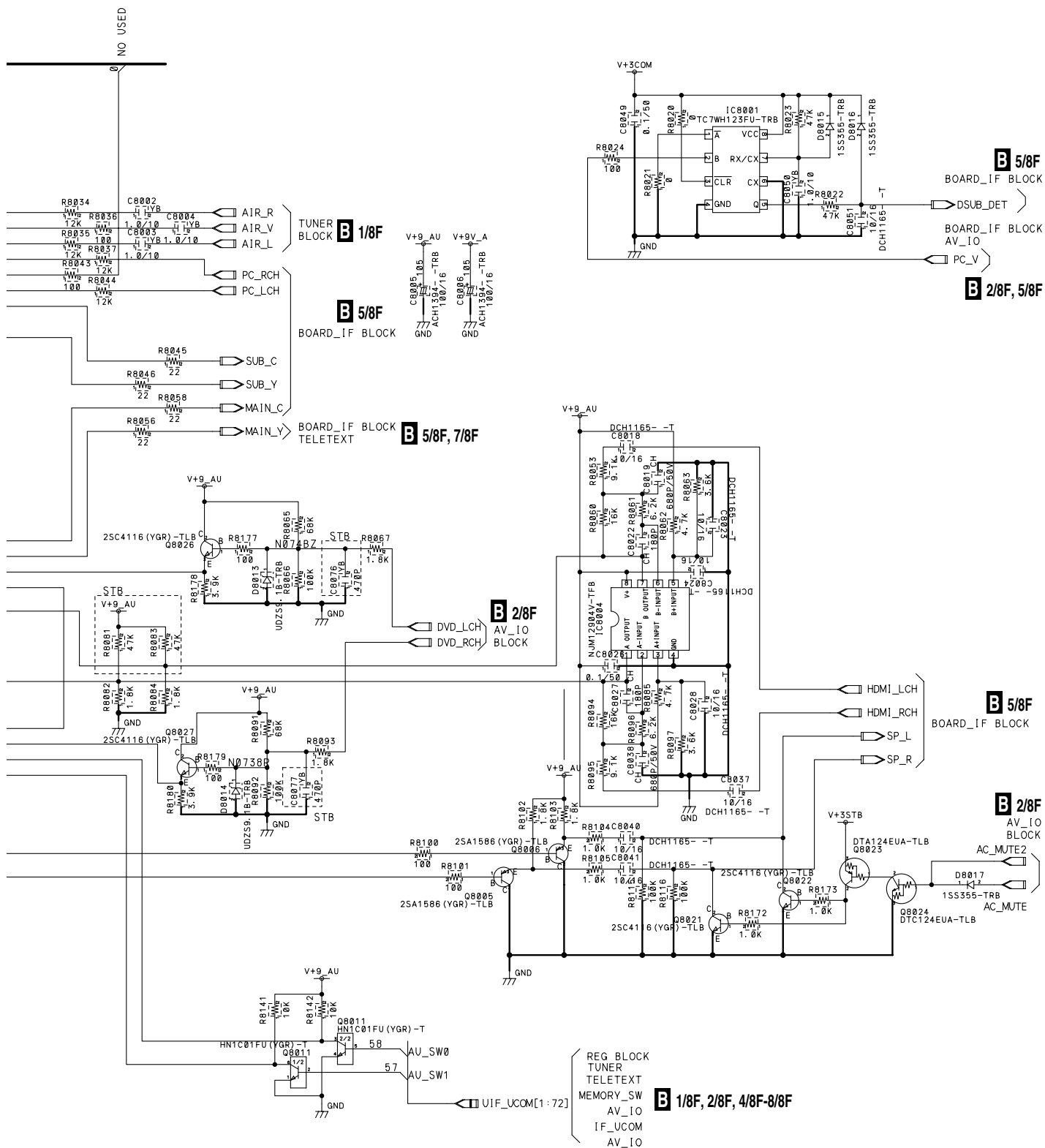
CKSRYF***Z**T

CKSRYB***K**T

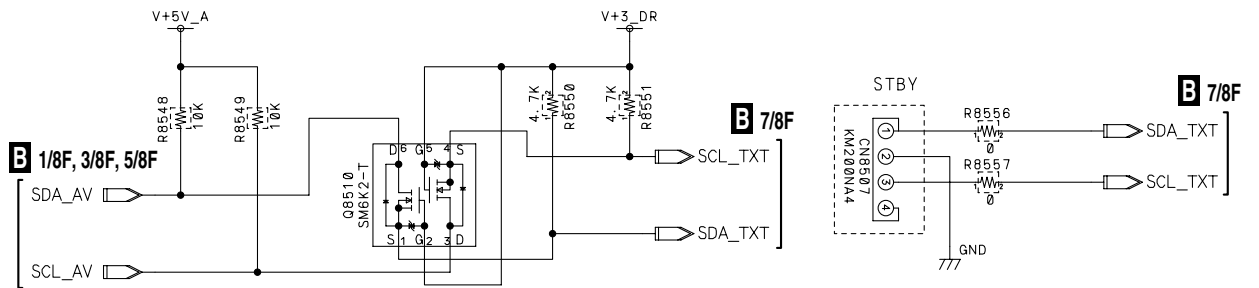
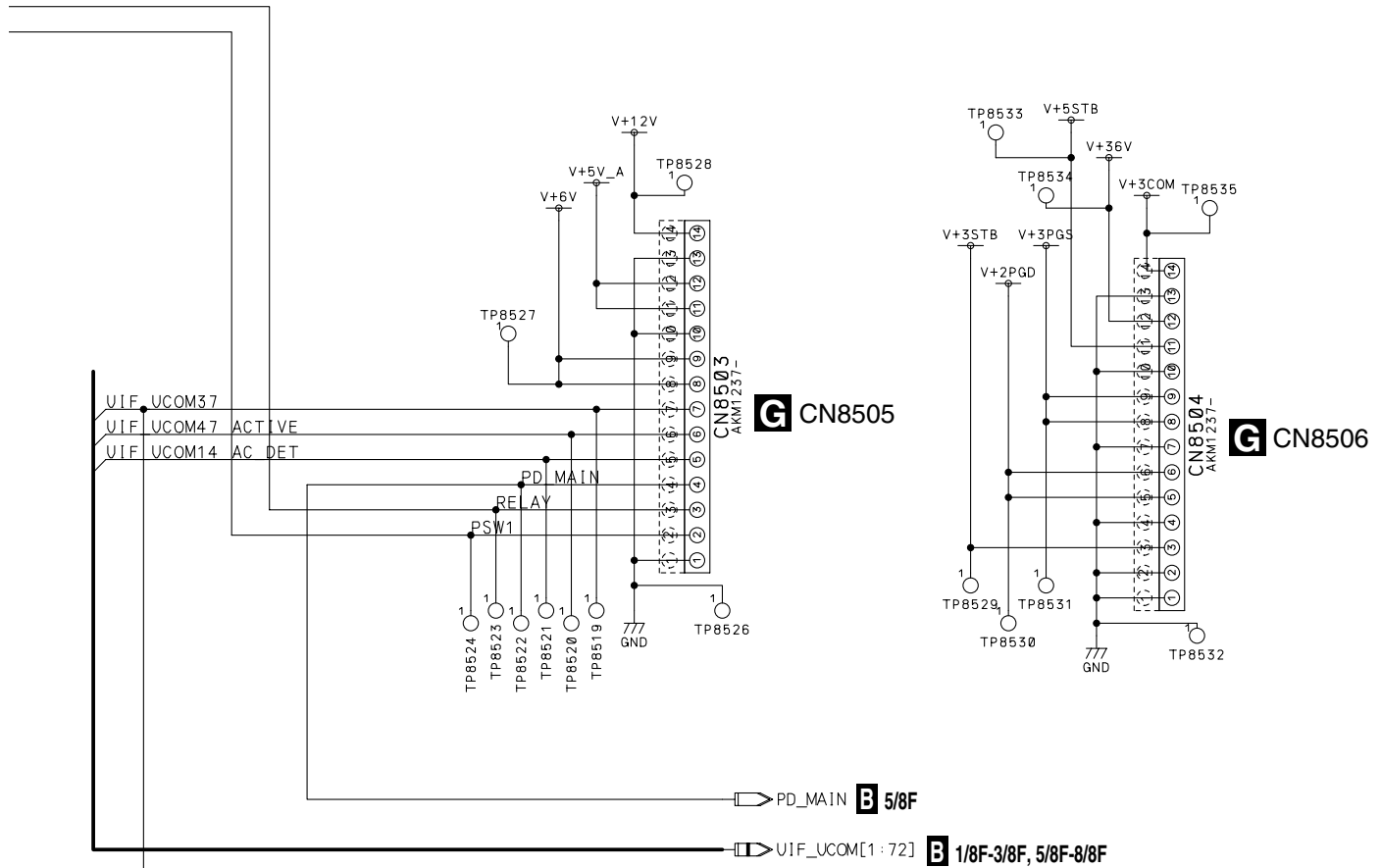
CCSRCH***J**T

B 3/8F





ITEM	USED	VACANT
R	8001-8024, 8030-8046, 8049-8050, 8053, 8056, 8059, 8060-8065, 8065-8071, 8076-8080, 8082, 8084-8111, 8115-8123, 8134-8138, 8141-8142, 8162-8164, 8172-8180	
C	8001-8006, 8009-8010, 8012-8016, 8018-8019, 8022-8028, 8031-8044, 8048-8053, 8055-8057, 8059-8061, 8079-8077	
Q	8005-8006, 8011, 8021-8027	
D	8013-8017	
IC	8001-8005	

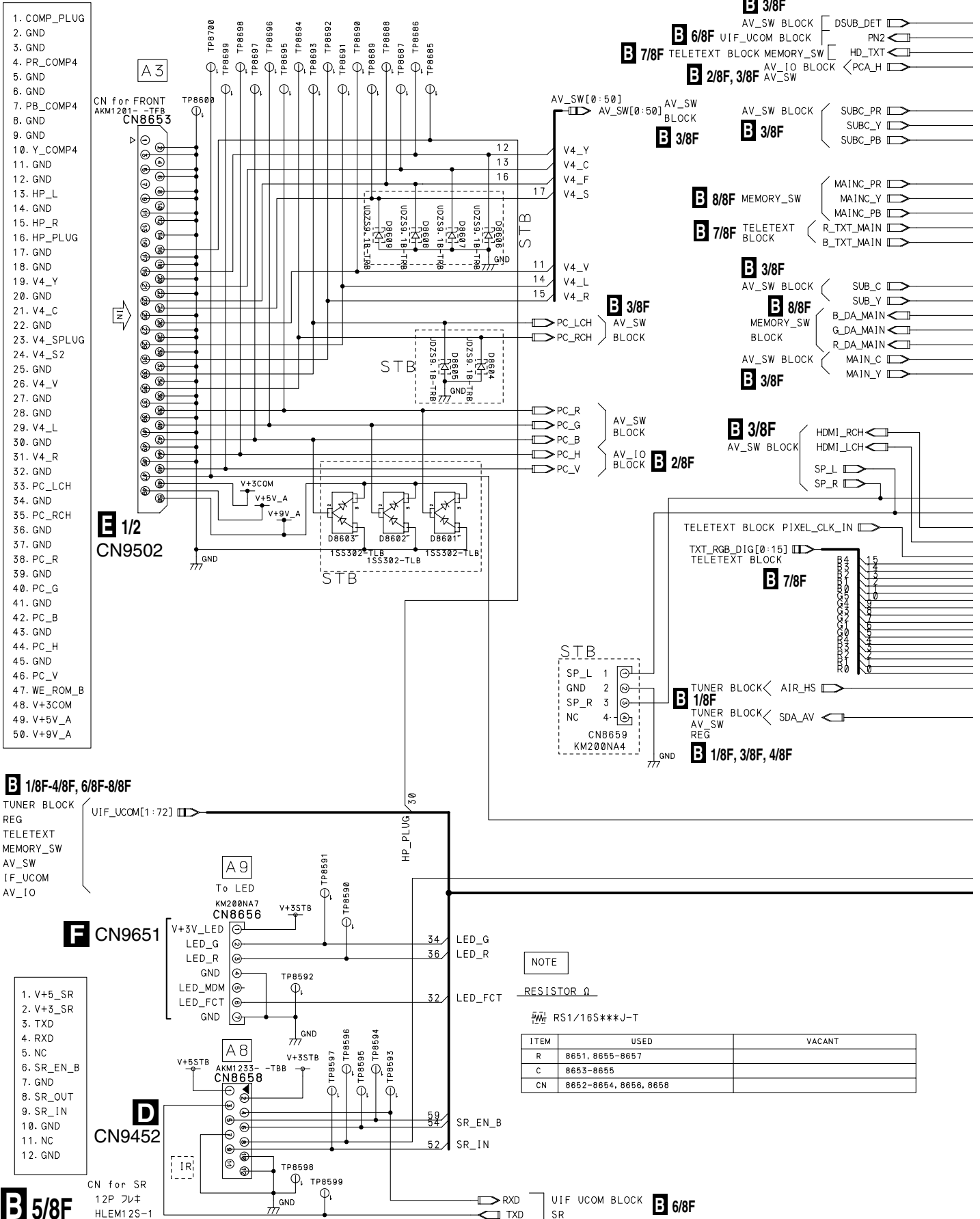


ITEM	USED	VACANT
R	8525-8532, 8541 8548-8554	8527, 8530, 8552
C	8510-8513, 8515-8518 8521-8524, 8530	
Q	8509-8512, 8514	
D	8509-8511	
IC	8504-8506	
F	8501-8504, 8506	
CN	8508, 8510 8505, 8504	

2.8 AV BOARD ASSY (5/8)

B 5/8F AV BOARD ASSY (AWZ6818)

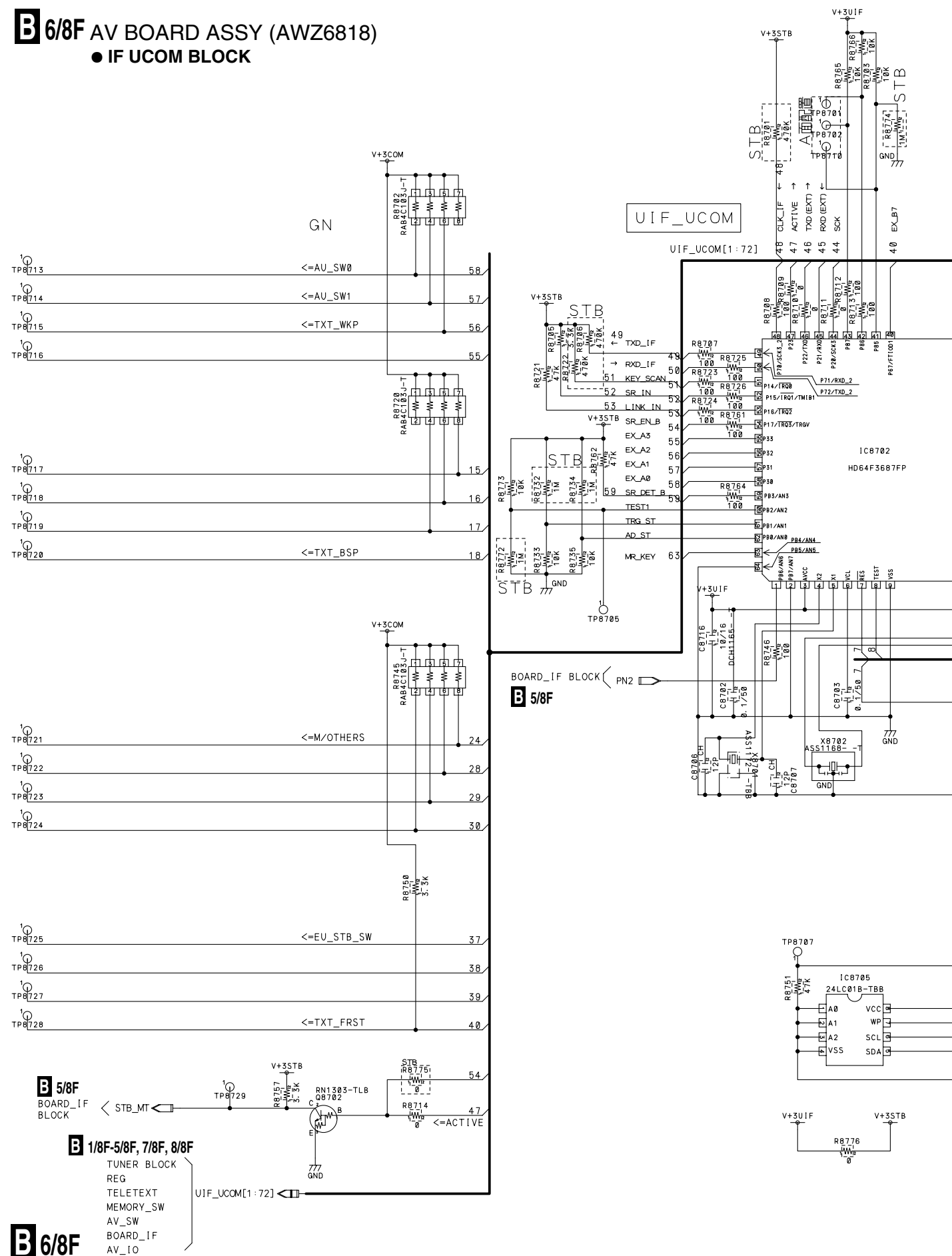
● BOARD IF BLOCK

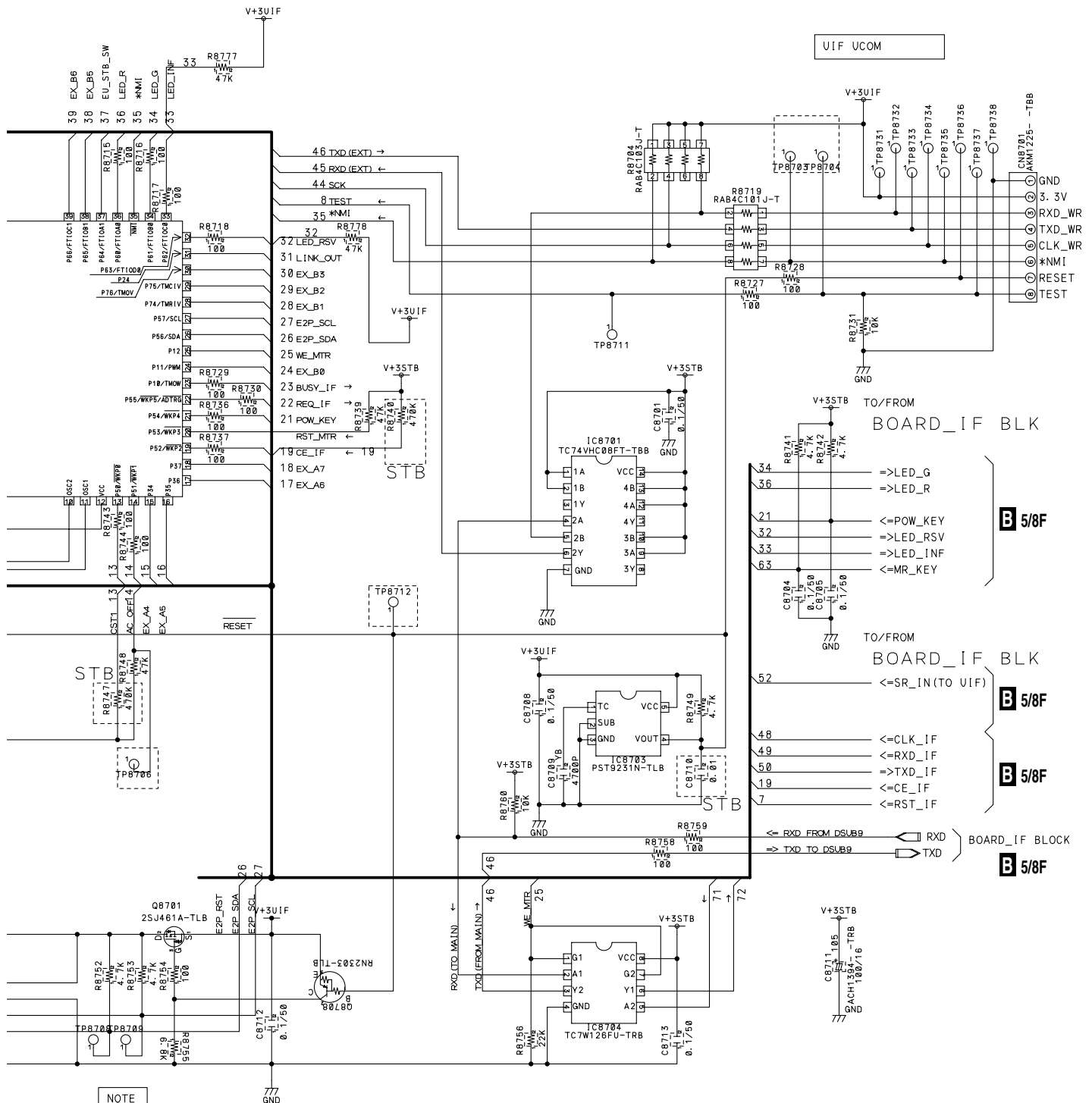




2.9 AV BOARD ASSY (6/8)

B 6/8F AV BOARD ASSY (AWZ6818)
● IF UCOM BLOCK





NOTE

RESISTOR Ω

RS1/16S***J-T

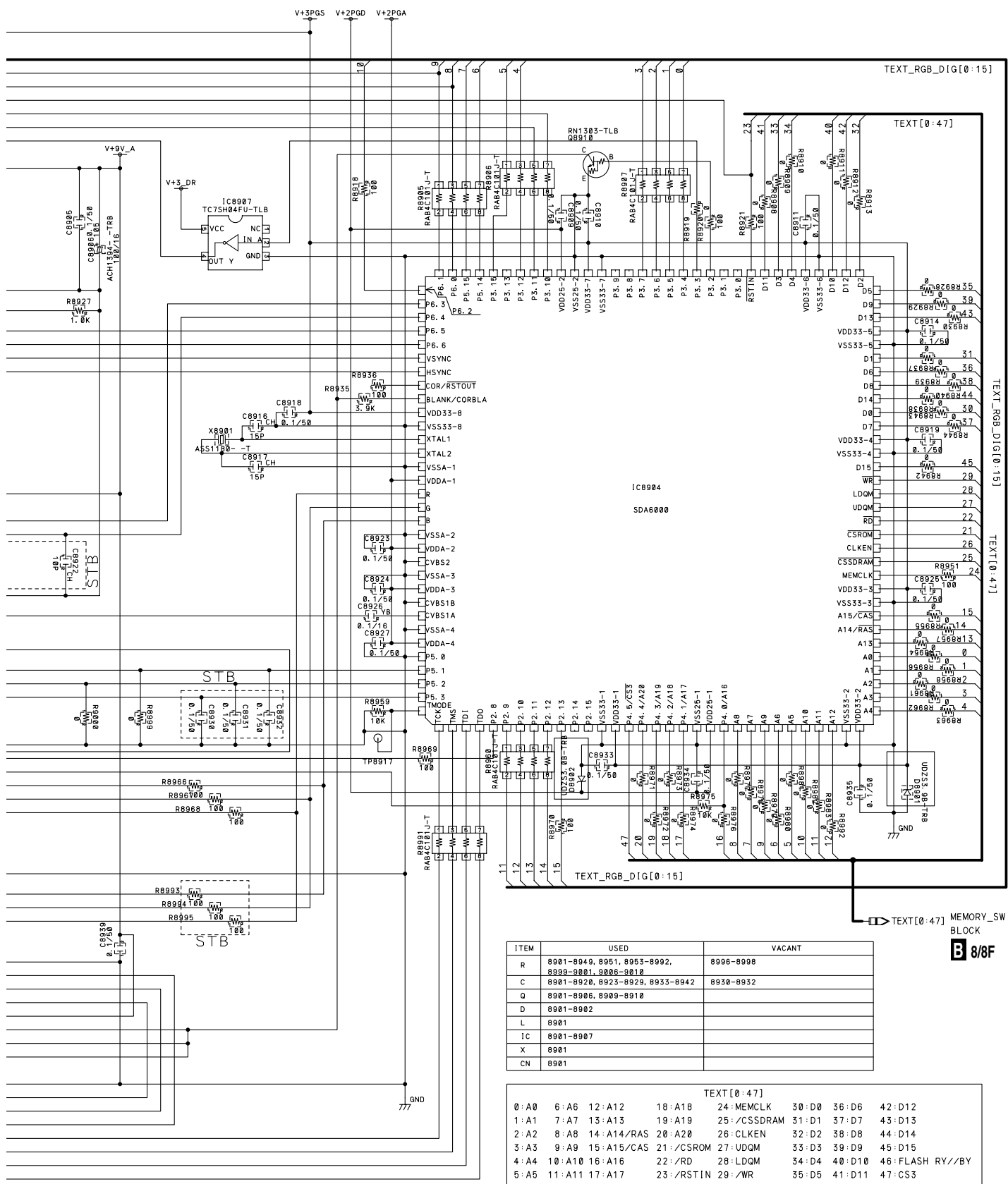
CAPACITORS #F

CKSRVF***Z**T

CKSRVB***K**T

CCSRCH***J**T

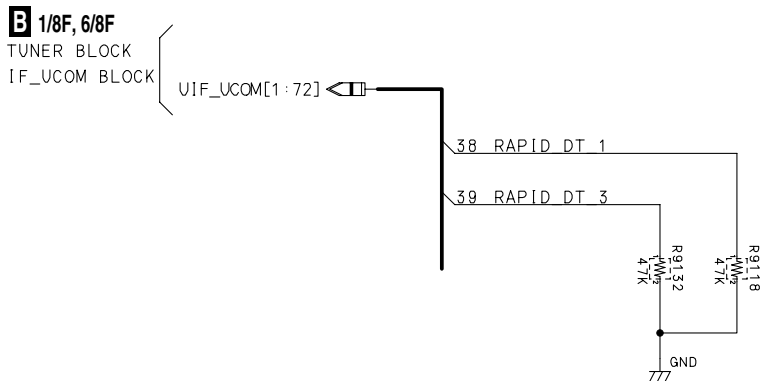
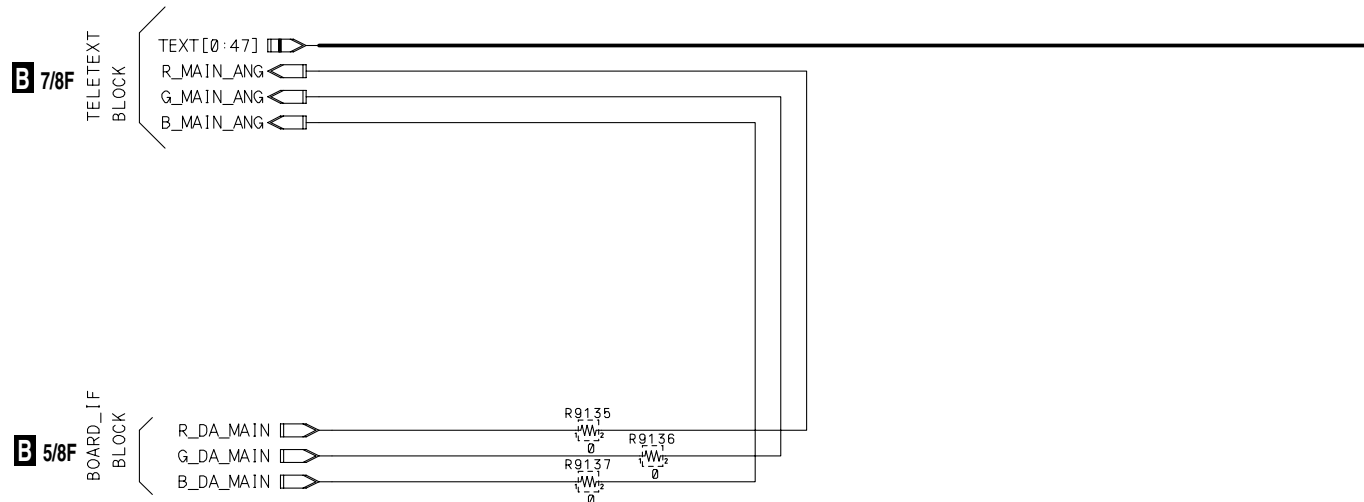
ITEM	USED	VACANT
R	8702-8705, 8707-8721, 8723-8731, 8733, 8735-8737, 8739, 8741-8745, 8748-8762, 8764-8766, 8773, 8776-8778	
C	8701-8709, 8711-8713, 8716	
Q	8701-8702, 8708	
IC	8701-8705	
X	8701-8702	
CN	8701	



2.11 AV BOARD ASSY (8/8)

8/8F AV BOARD ASSY (AWZ6818)

● MEMORY_SW BLOCK



NOTE

RESISTOR Ω

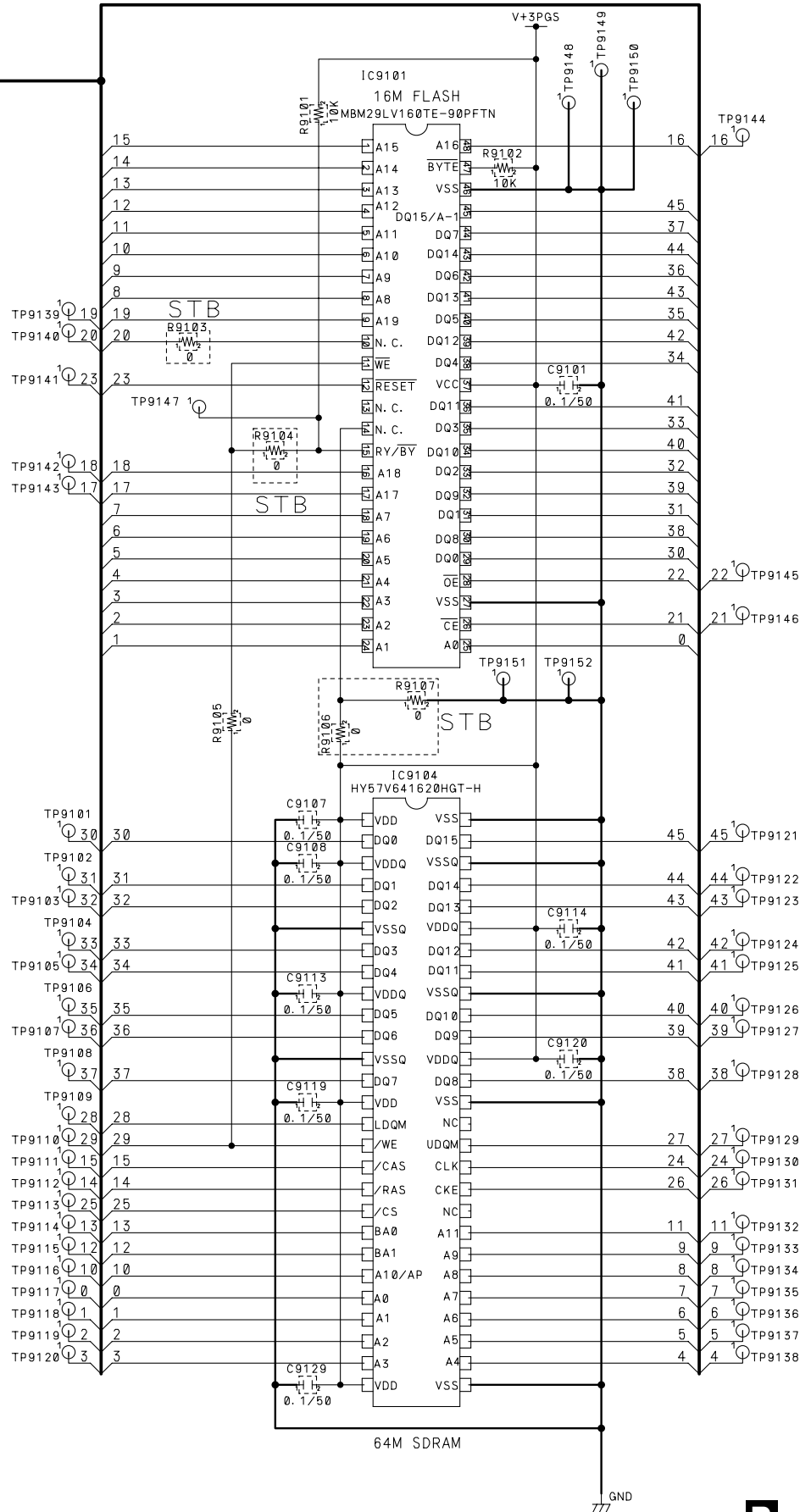
RS1/16S***J-T

CAPACITORS μF

CKSRYF***Z**-T

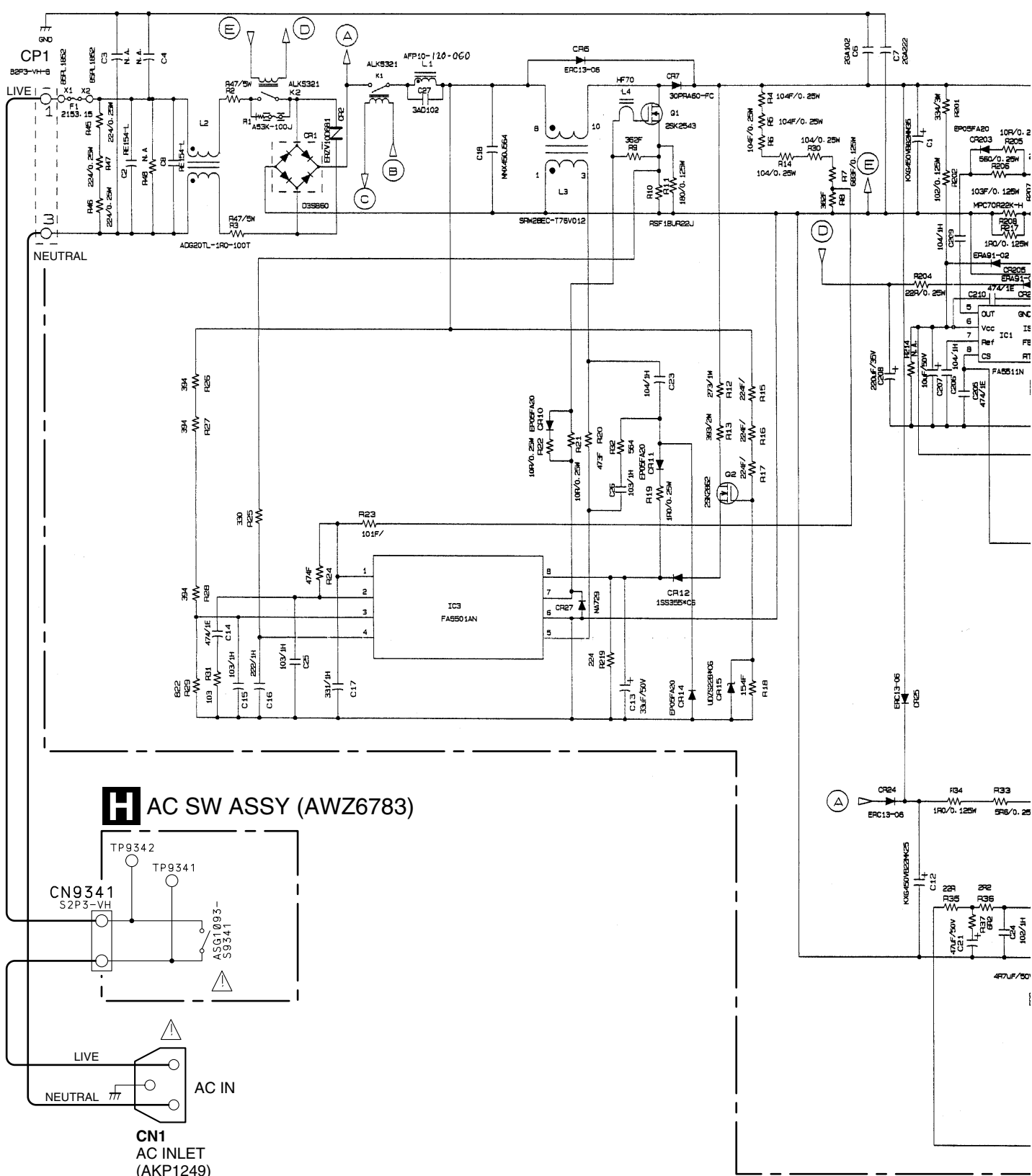
TEXT[0:47]				
0:A0	10:A10	20:A20	30:D0	40:D10
1:A1	11:A11	21:/CSROM	31:D1	41:D11
2:A2	12:A12	22:/RD	32:D2	42:D12
3:A3	13:A13	23:/RSTIN	33:D3	43:D13
4:A4	14:A14/RAS	24:MEMCLK	34:D4	44:D14
5:A5	15:A15/CAS	25:/CSSDRAM	35:D5	45:D15
6:A6	16:A16	26:CLKEN	36:D6	46:FLASH RY//BY
7:A7	17:A17	27:UDQM	37:D7	47:CS3
8:A8	18:A18	28:LDQM	38:D8	
9:A9	19:A19	29:/WR	39:D9	

TEXT[0:47]



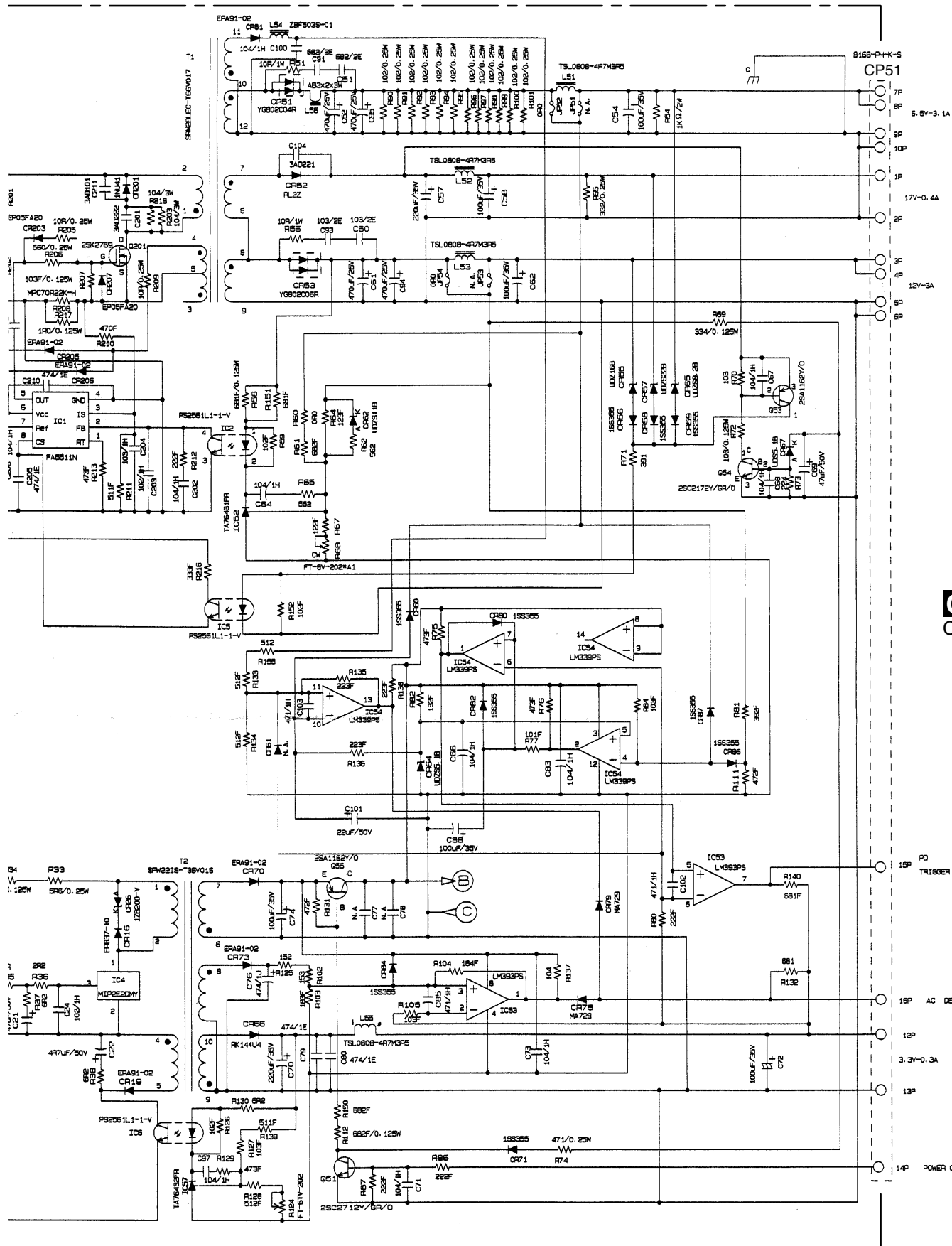
2.12 AC SW ASSY and POWER SUPPLY UNIT

POWER SUPPLY UNIT (AXY1081)



AC SW ASSY (AWZ6783)





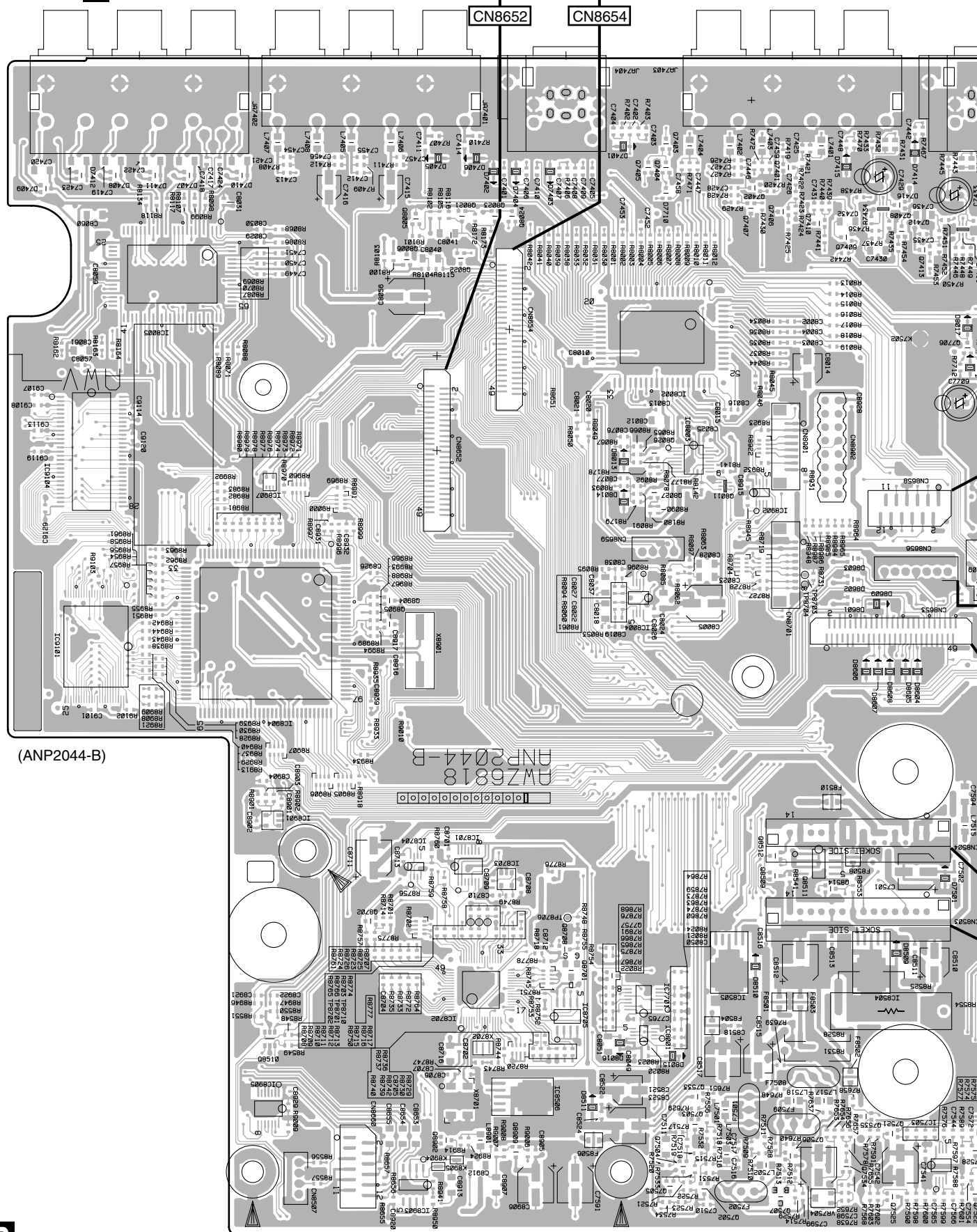
GN
CN8501

SIDE A

BF AV BOARD ASSY

A CN7454

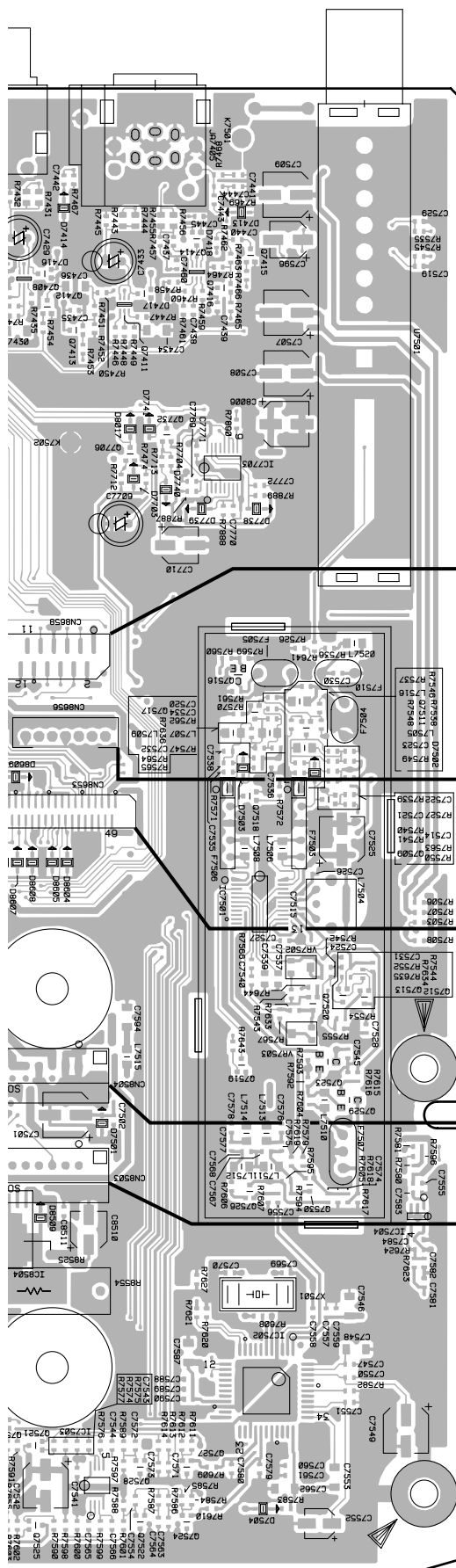
A CN7455



34

PDP-R04G

DF SR ASSY

SIDE A


Q7403
Q7405
Q7404
Q7401
Q7414
Q7402
Q7415
Q8021
Q8022
Q8024
Q8005
Q8022
Q8006
IC8005
Q7413

IC8002 Q7732
Q7706
IC7703

IC9104 IC8003
IC8907 Q8027
IC8902
Q7716
Q7517

IC8004
Q8904

Q8905 Q7518
IC8904 Q7509
IC9101

IC7501 L7504

Q7513
Q7512
Q7520
Q7523
Q7519
Q8512
Q7529
Q8511

IC8901
IC8704
IC8701

Q8509
Q8514
Q7530
Q7526
IC7504

Q8701
Q7757
IC8504
IC8505

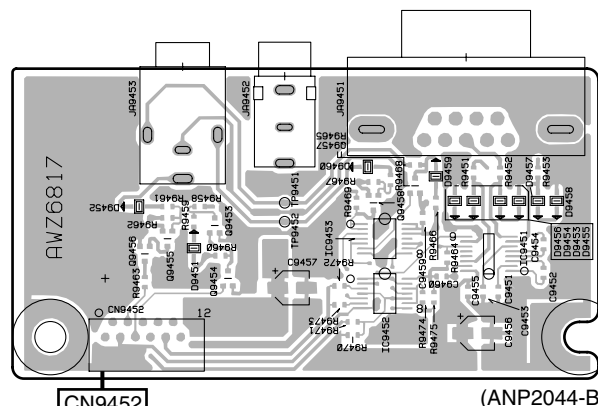
IC7701
IC8702
IC8705
IC8001
Q8510

IC7502
Q7533
Q7535
Q7503
Q7521
Q7527
Q7528
Q7506
IC7503

Q7504
Q7534
Q7505
Q7502
Q7522
Q7524
Q7525
Q7507

Q8902
Q8909

IC8903 VR7504

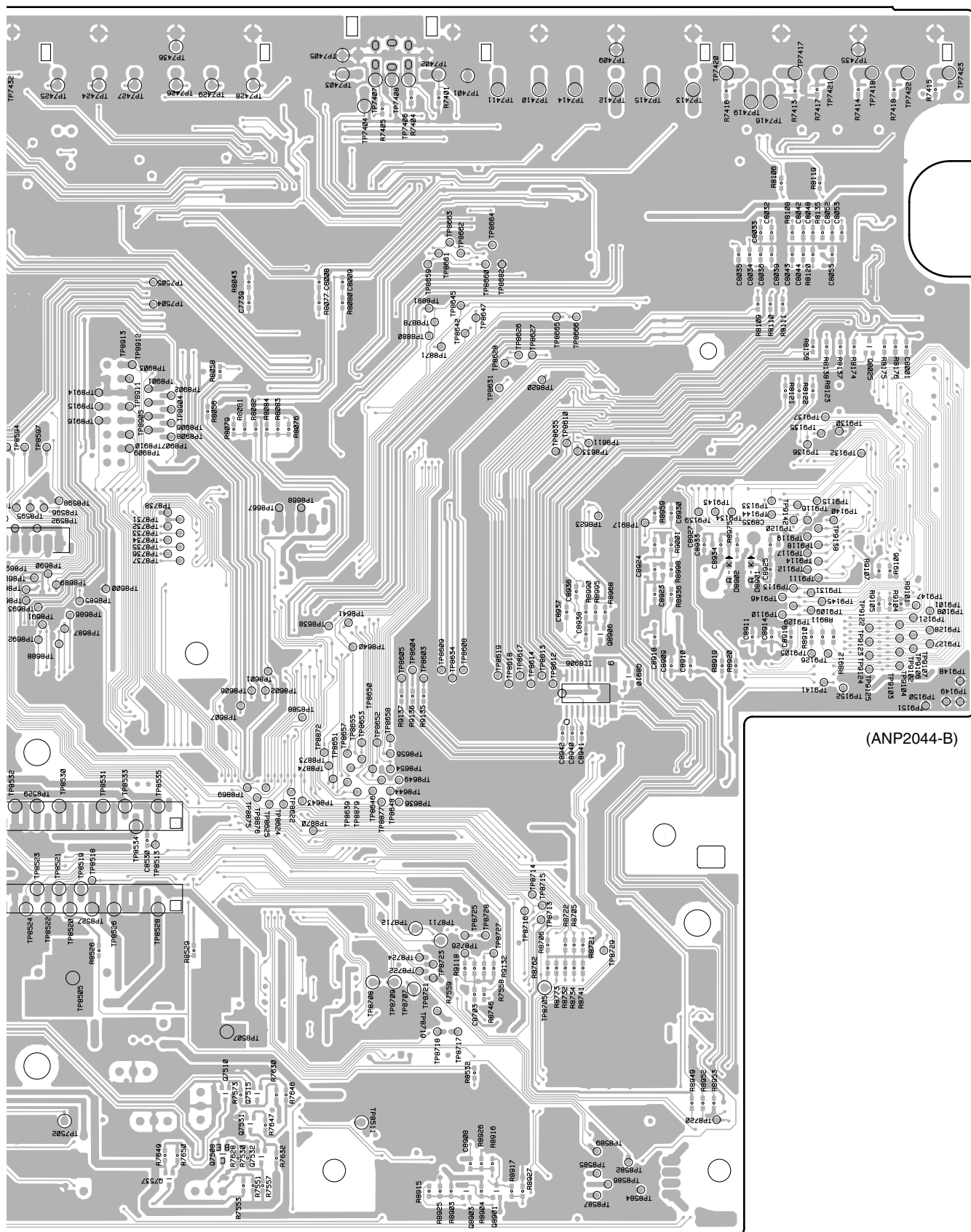

CN9452

(ANP2044-B)

Q9455 Q9453 IC9453 Q9457 IC9451
Q9456 Q9454 IC9452 Q9458

F CN7651
E CN9502
G F CN8506
G F CN8505
B F D F

B F AV BOARD ASSY



4. ADJUSTMENT ITEMS



If readjustment is necessary because of adjustment error at shipment, perform adjustments as shown below.

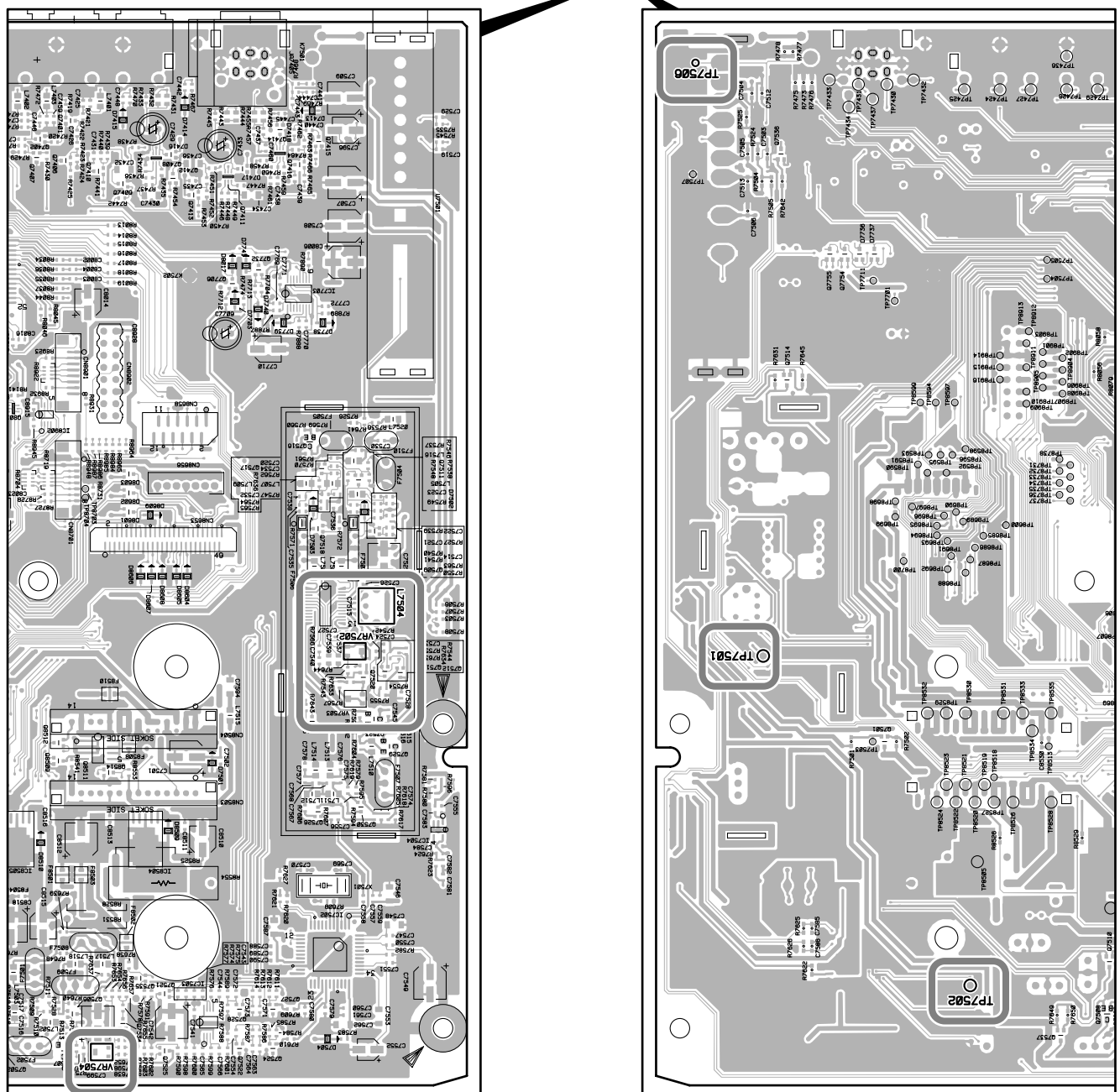
● Adjustment Points

BF AV BOARD ASSY

Rear side

SIDE A**SIDE A**

SIDE B



1 AFC Adjustment

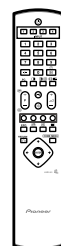
Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V

PAL-B/G

White bar 100%

START



Select 175.25 MHz

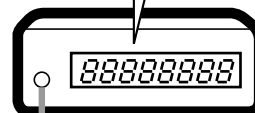
1

~

9



L7504
(AV BOARD Assy)(1/8)



Digital multimeter
/ Tester

Adjust TP7501 to $2.5 \pm 0.1V$

TP7501
(AV BOARD Assy)

2 RF-AGC Adjustment

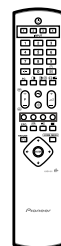
Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 66dB μ V

PAL-B/G

Multiburst

START



Select 196.25 MHz

1

~

9



VR7502
(AV BOARD Assy)(1/8)



Digital multimeter
/ Tester

Adjust TP7506 to $3.0 \pm 0.1V$

TP7506
(AV BOARD Assy)

③ Video Level Adjustment

Equipment : SG

Condition : Input RF level 75dB μ V
PAL-B/G
White bar 100%

START



Select 175.25 MHz

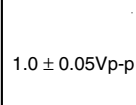
1

9

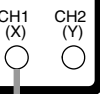


VR7504
(AV BOARD Assy)(1/8)

Adjust TP7502 to $1.0 \pm 0.05\text{Vp-p}$



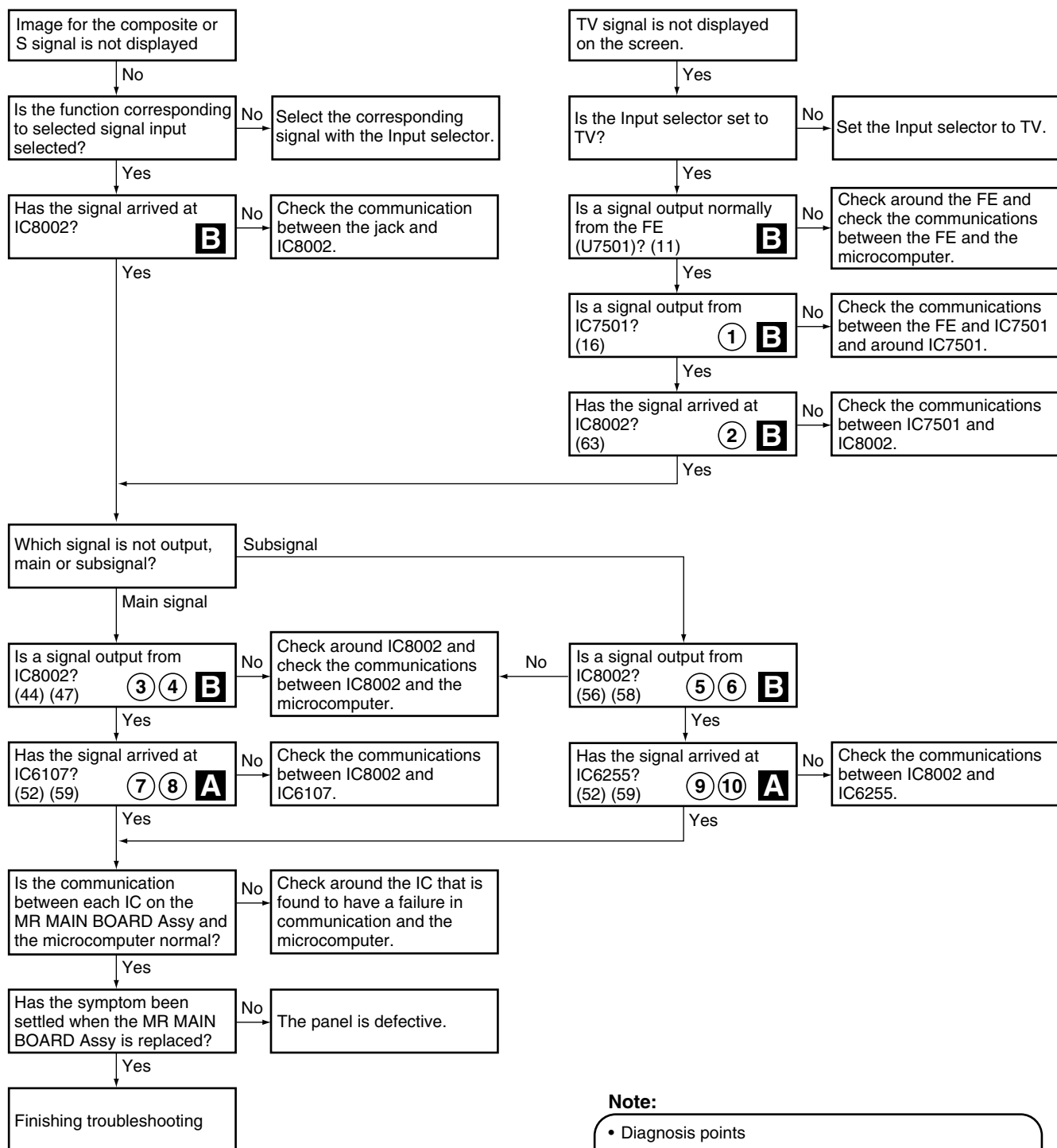
Oscilloscope



TP7502
(AV BOARD Assy)

5. TROUBLE SHOOTING

● Image for the composite or S signal is not displayed



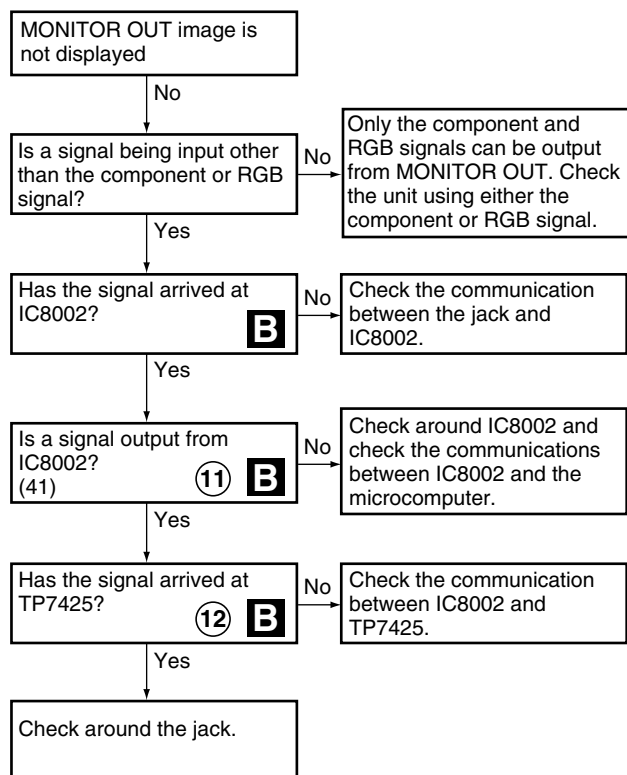
Note:

- Diagnosis points

A MR MAIN BOARD ASSY
B AV BOARD ASSY

- For check the communication with the microcomputer, refer to the section 6.7 SERVICE FACTORY MODE.
- The encircled numbers denote measuring point in the Waveforms for Troubleshooting.

● MONITOR OUT image is not displayed



● Image for the component or RGB signals is not displayed

A

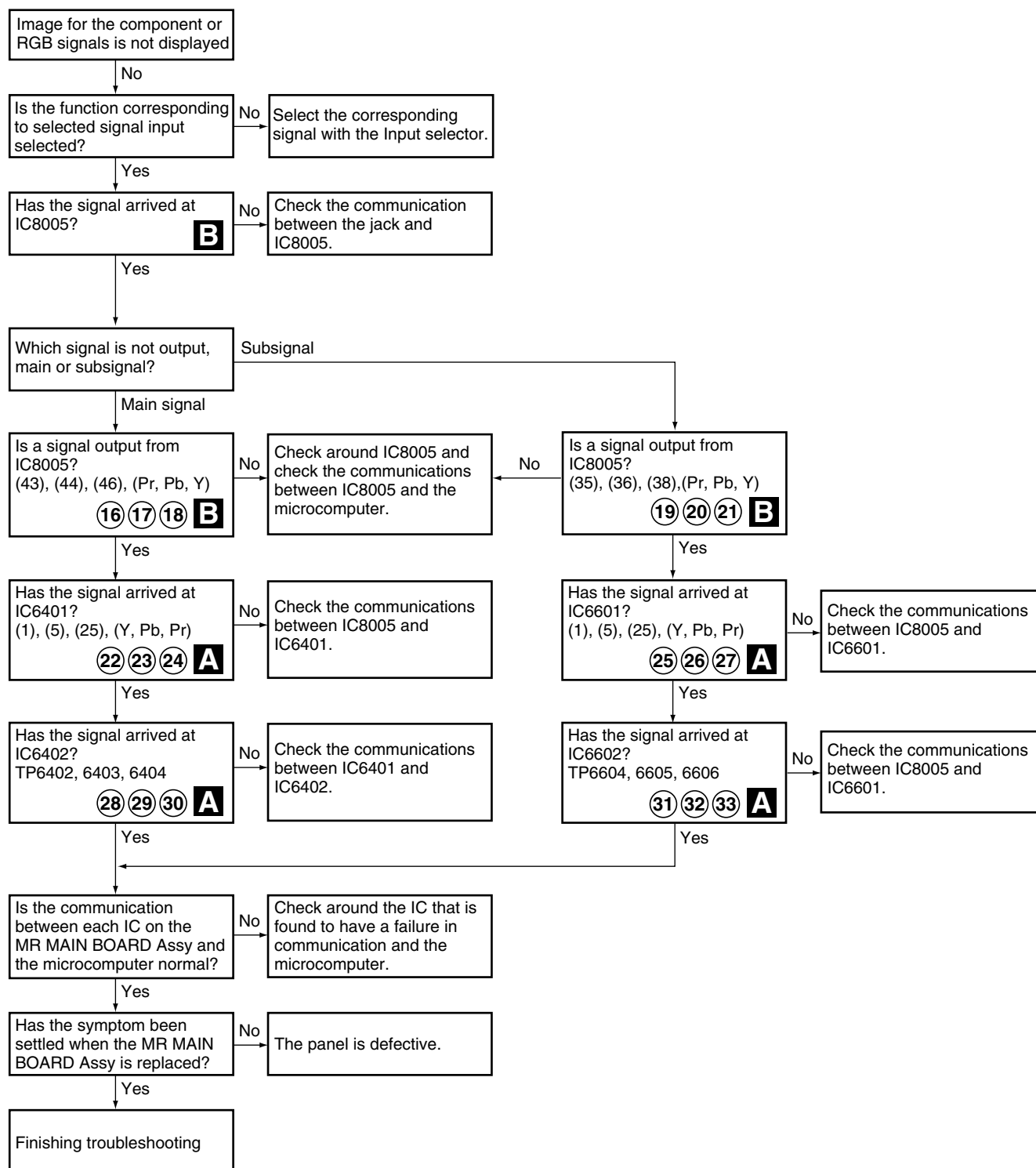
B

C

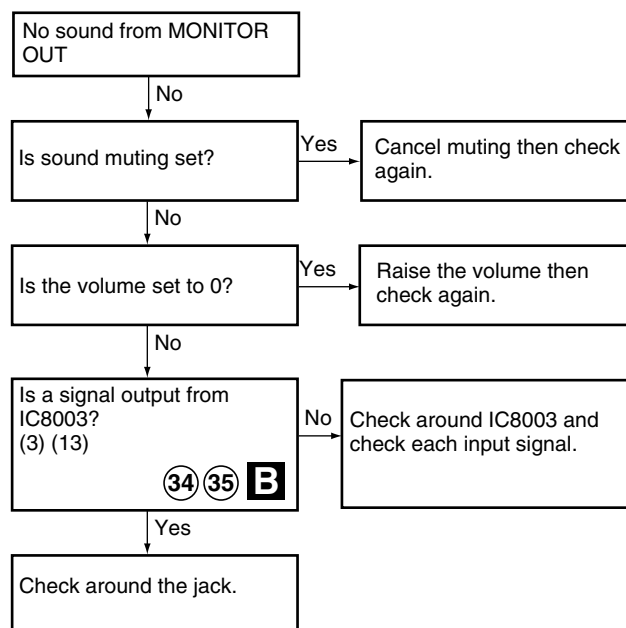
D

E

F

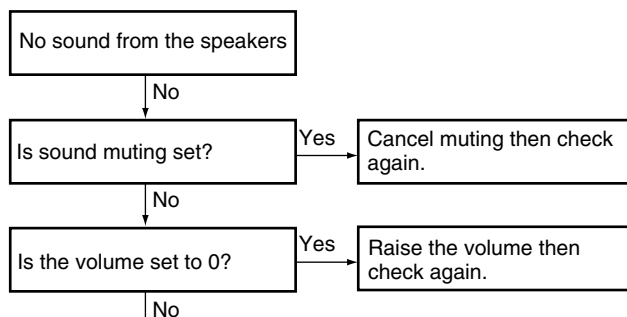


● No sound

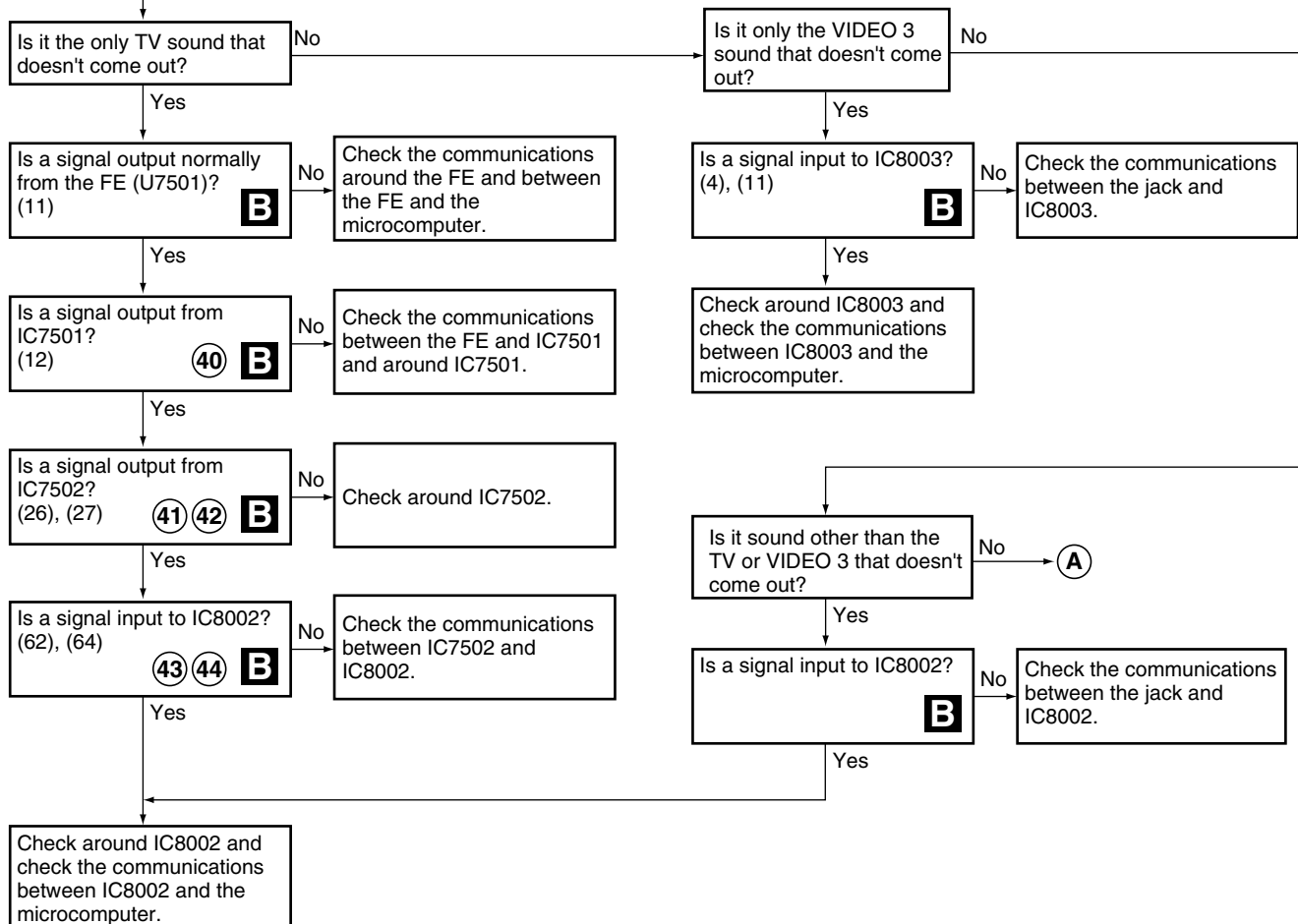


● No sound from the speakers (1/2)

A



B



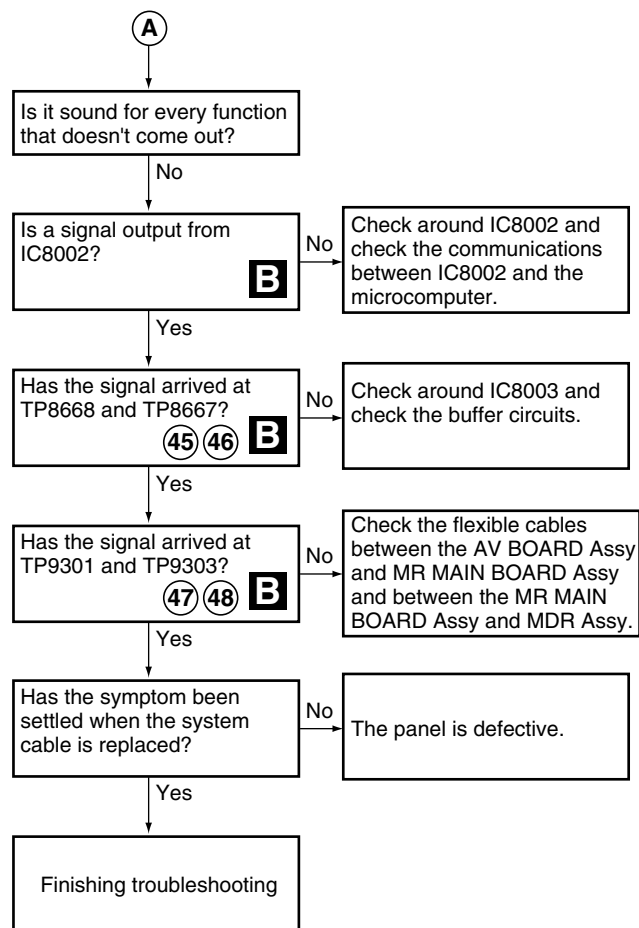
C

D

E

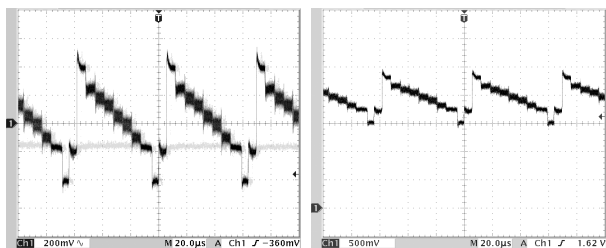
F

● No sound from the speakers (2/2)

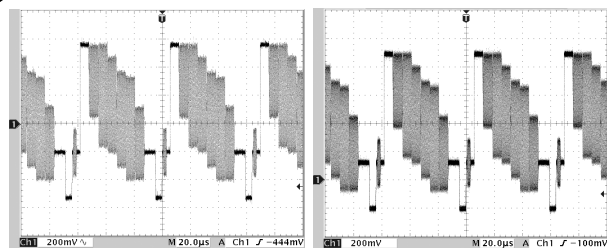


A

① U7501 - pin 19

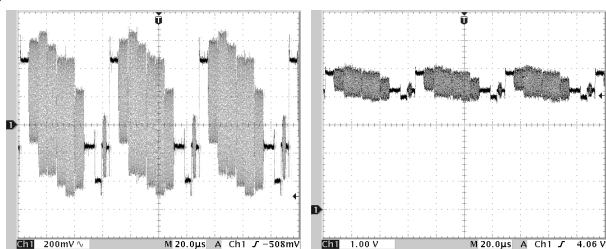


⑦ IC6107 - pin 52

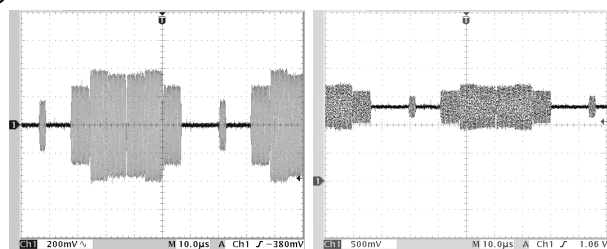


B

② IC8002 - pin 63

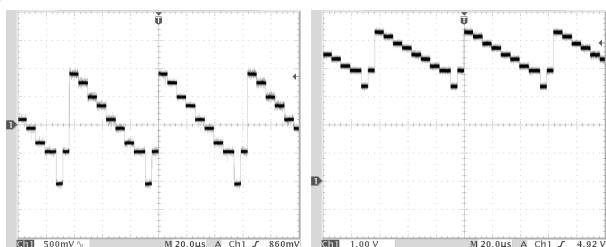


⑧ IC6107 - pin 59

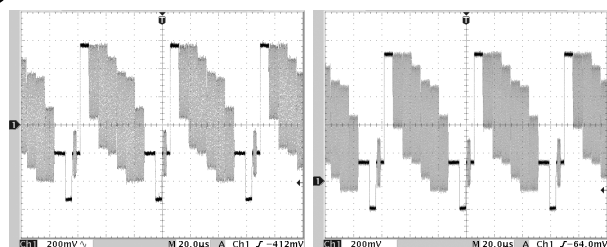


C

③ IC8002 - pin 44

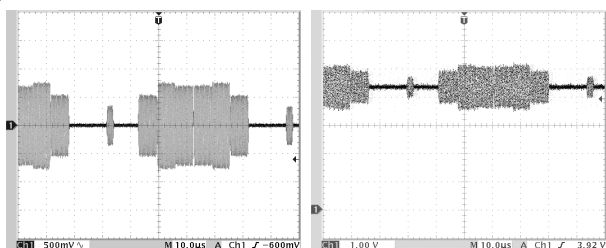


⑨ IC6255 - pin 52

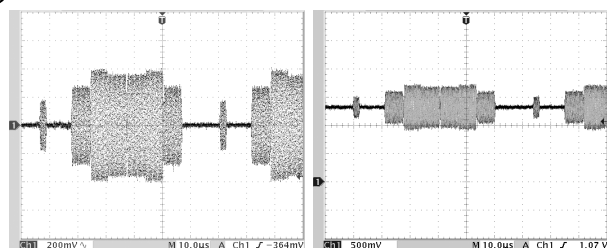


D

④ IC8002 - pin 47

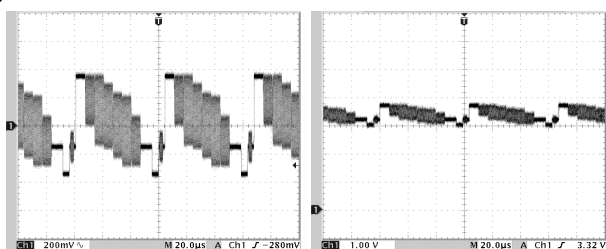


⑩ IC6255 - pin 59

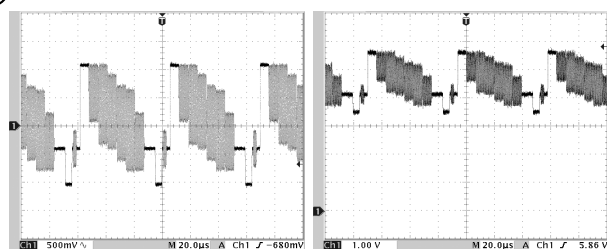


E

⑤ IC8002 - pin 56

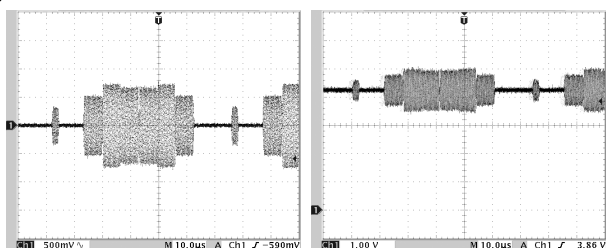


⑪ IC8002 - pin 41

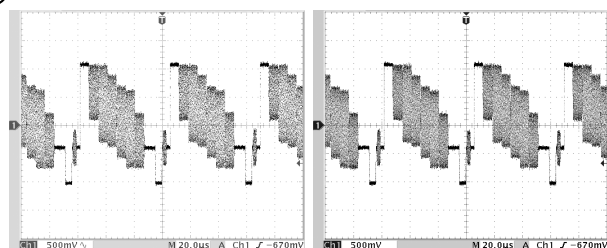


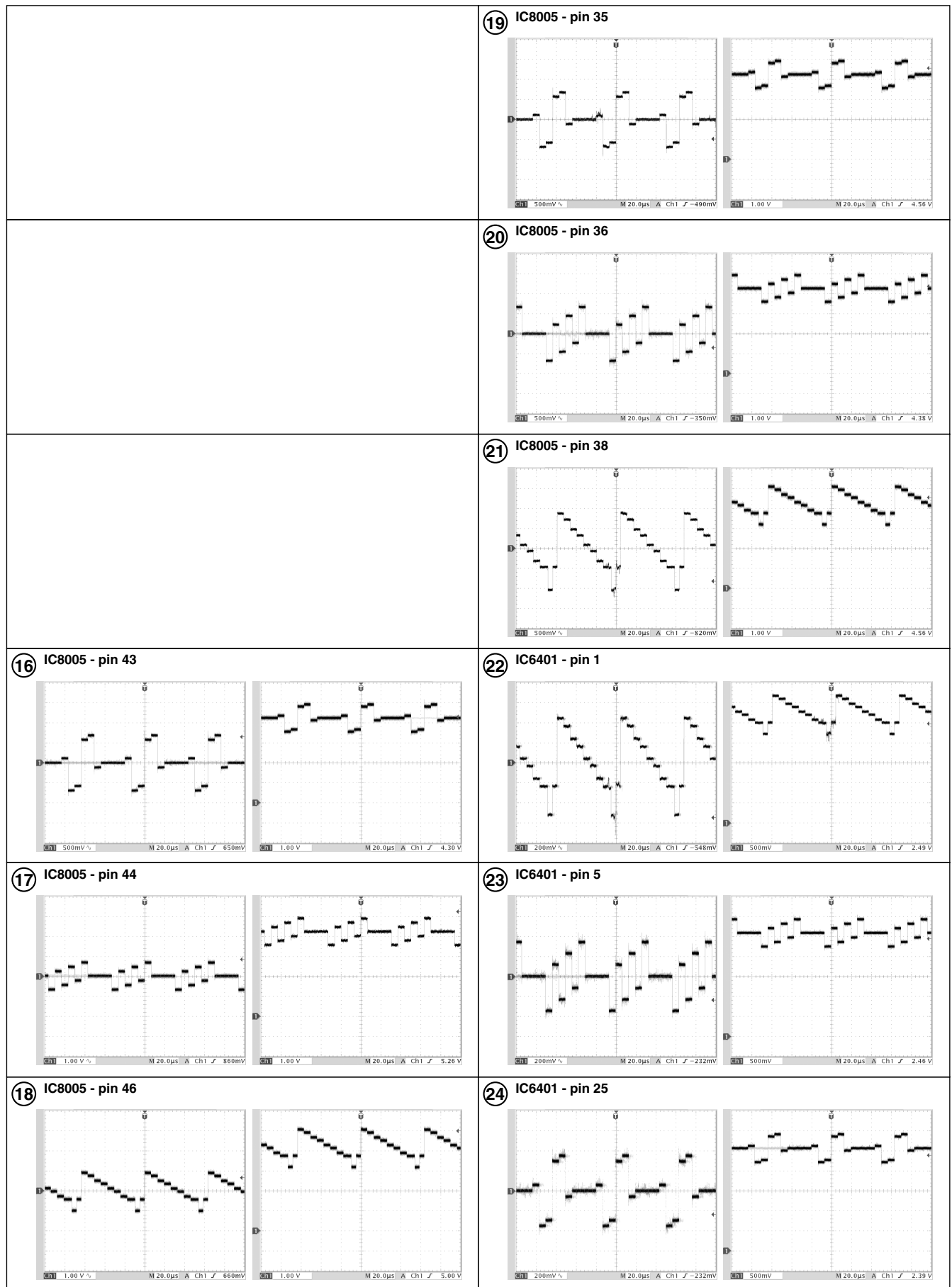
F

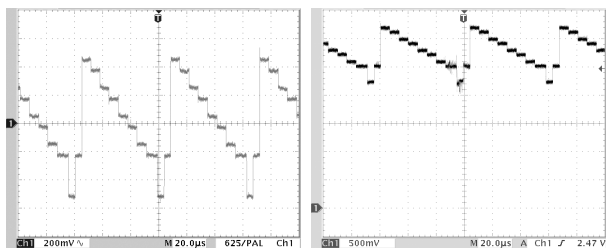
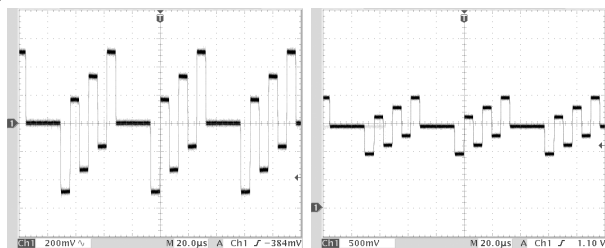
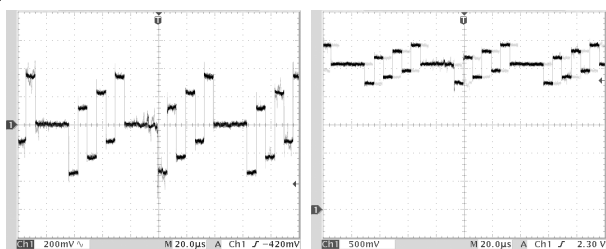
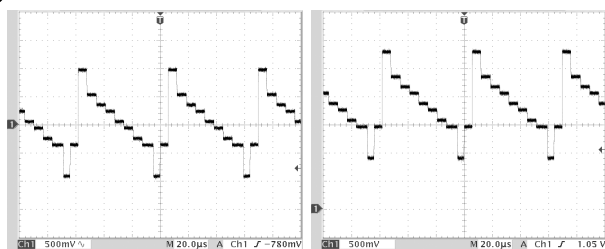
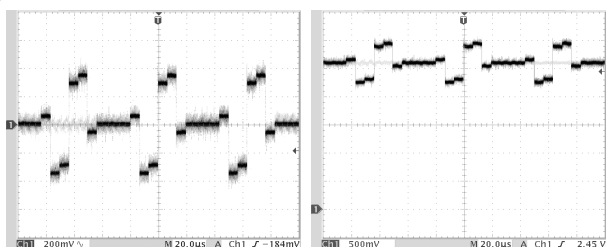
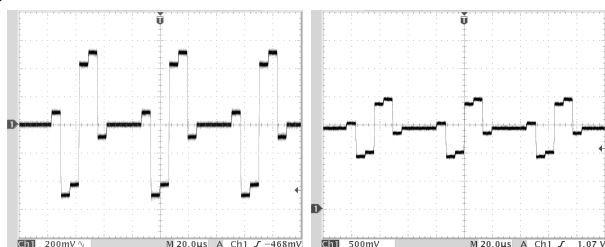
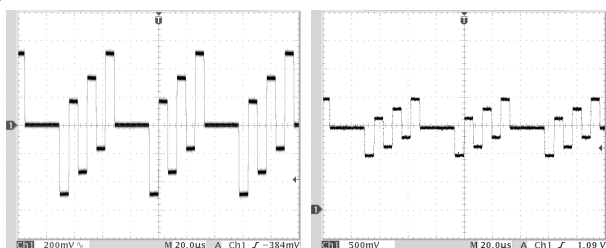
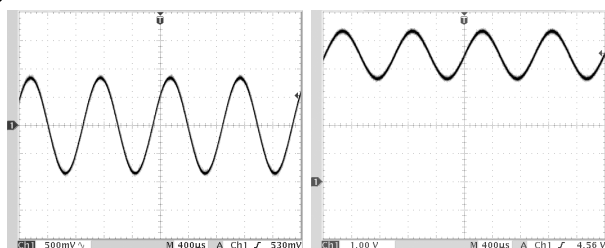
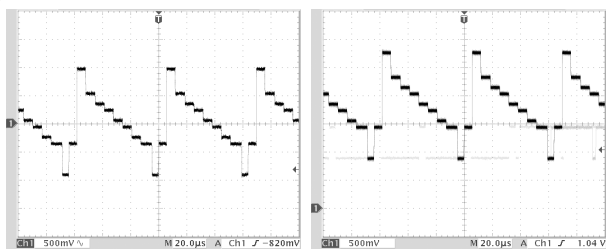
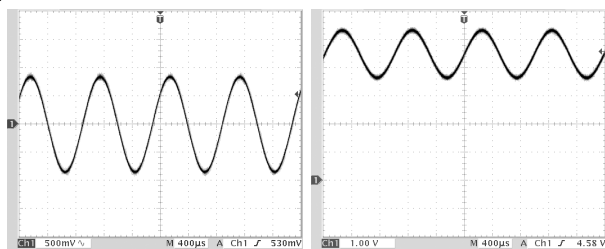
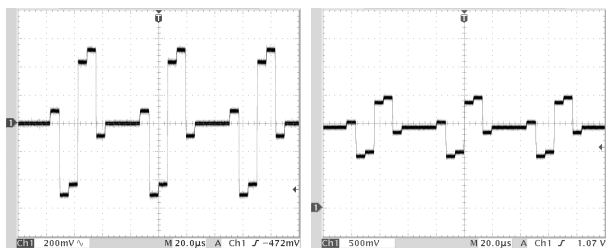
⑥ IC8002 - pin 58

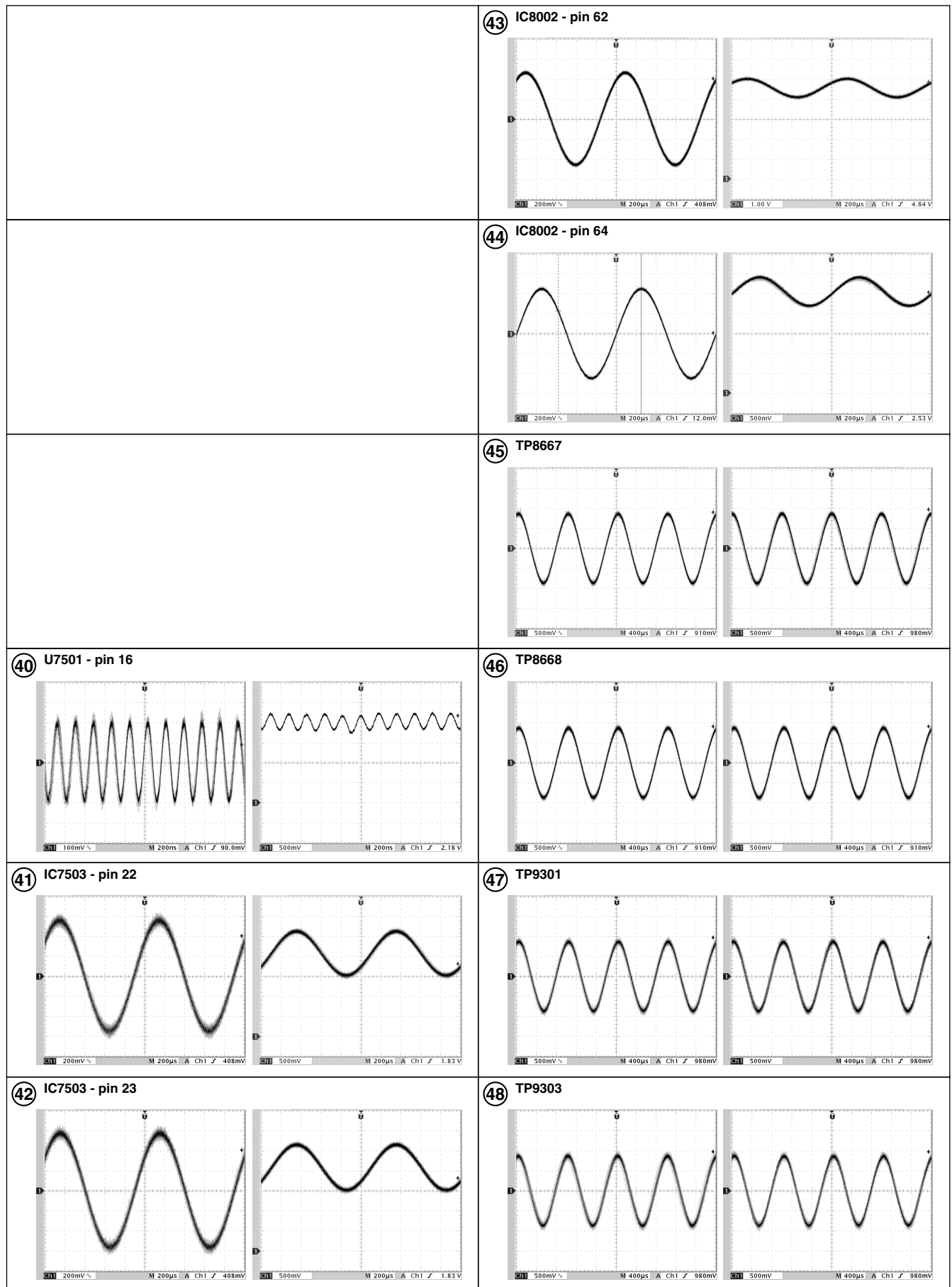


⑫ TP7425





25 IC6601 - pin 1**31** TP6604**26** IC6601 - pin 5**32** TP6605**27** IC6601 - pin 25**33** TP6606**28** TP6402**34** IC8003 - pin 3**29** TP6403**35** IC8003 - pin 13**30** TP6404



Service Manual



PDP-R04E

ORDER NO.
ARP3179

MEDIA RECEIVER

PDP-R04E

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R04E	WYVI6	AC220-240V	
PDP-R04E	WYVI6XK	AC220-240V	

Please connect this model to the PLASMA DISPLAY PDP-504PE or PDP-434PE, for adjustment and operation inspection.



For details, refer to "Important symbols for good services".

Confirm it

Serial No.

○ WYVI6 : ☐ SS #####△△

○ WYVI6XK : ☐ UK #####△△

SAFETY INFORMATION



This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

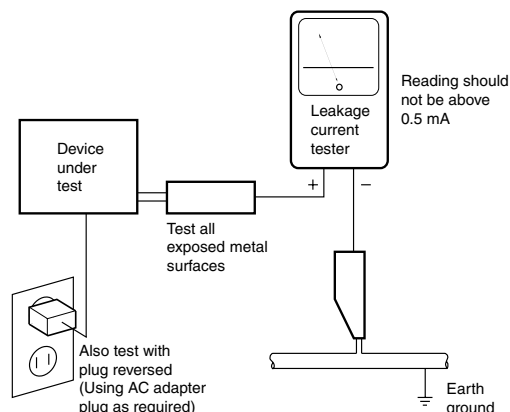
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

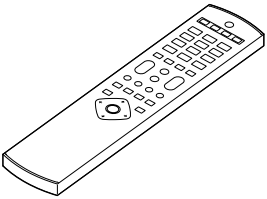
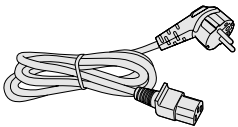
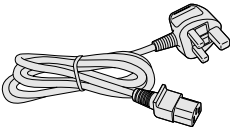
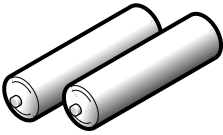

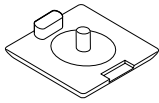
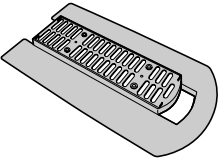
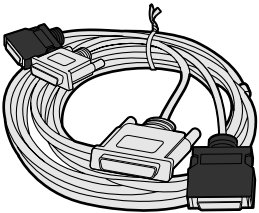
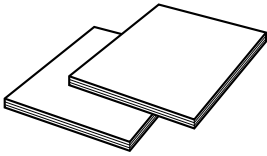
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1. SPECIFICATIONS


Item			Media Receiver, Model: PDP-R04E
Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60
TV Function	Receiving System		B/G, D/K, I, L/L'
	Tuner	VHF/UHF	E2–E69ch, F2–F10ch, I21–I69ch, IR A–IR Jch
		CATV	Hyper-band, S1–S41ch
	Auto Channel Preset		99 ch, Auto Preset, Auto Label, Auto Sort
	STEREO		NICAM/A2
Terminals	Rear	INPUT 1	SCART (AV in, RGB in, TV out)
		INPUT 2	SCART (AV in/out, S-VIDEO in, AV link*1)
		INPUT 3	SCART (AV in/out, S-VIDEO in, RGB in, AV link*1), Component Video in, HDMI in
		Antenna	75 Ω Din Type for VHF/UHF in
	Front	INPUT 4	S-VIDEO, AV in
		PC	15 Pin mini D-Sub, Audio in
MONITOR OUTPUT Terminal (Rear)			S-VIDEO out, AV out
SUB WOOFER OUTPUT Terminal (Rear)			Variable
PHONES OUTPUT Terminal (Front)			16–32 Ω recommended
Power Requirement			220–240 V AC , 50/60 Hz, 38 W (0.4 W Standby)
Dimensions			420 (W) × 90 (H) × 297 (D) mm
Weight			5.0 kg

• accessories

Power cord (2 m)		 Remote control unit (AXD1481)
 (For Europe, except U.K. and Eire) (ADG1214)	 (For U.K. and Eire)	
Only the power code that is appropriate in your country or region is supplied.		
 AA size battery x 2 (Manganese battery)	 Screw x 4 (PMB40P120FZK) (for stand)	 Screw hole cap x 4 (AMR3363)
 Stand (AXG1013)	 System cable (3 m) (ADF1021)	 Two operating instructions

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

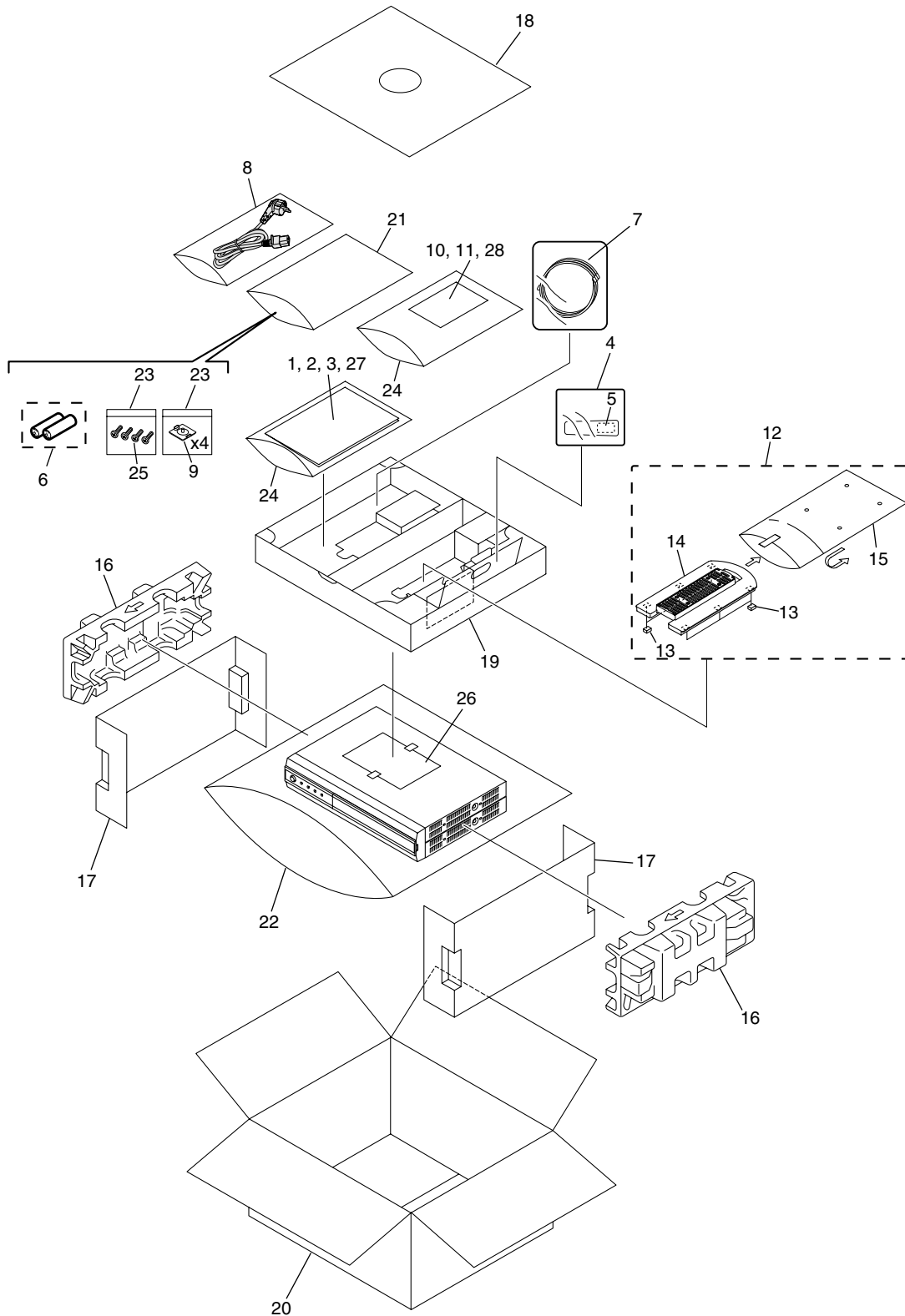
● The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ▼ mark on product are used for disassembly.



● For the applying amount of lubricants or glue, follow the instructions in this manual.

(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING



PACKING parts List

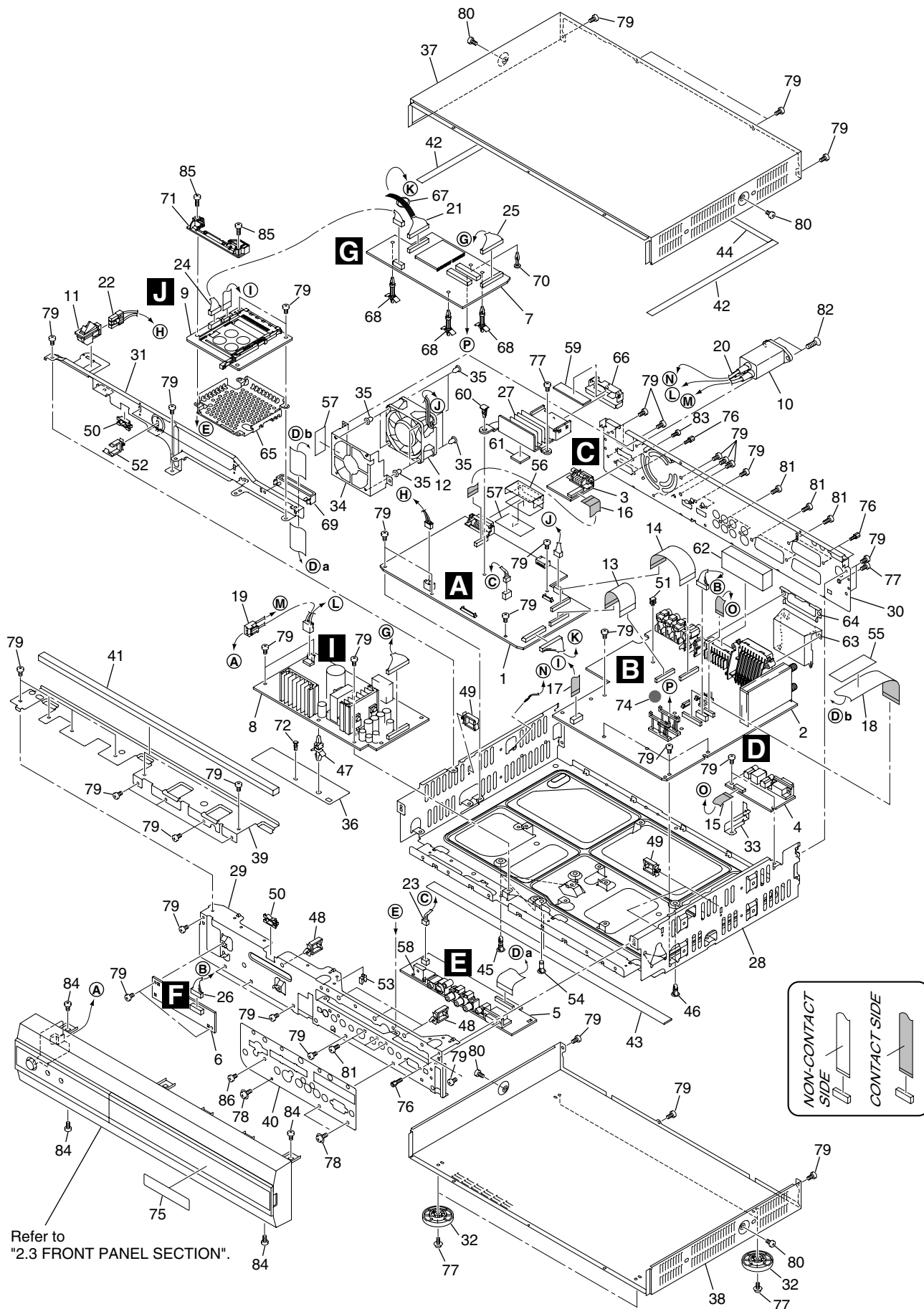
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Operating Instructions (English/French/Spanish)	ARE1368	16	Protector	AHA2305
2	Operating Instructions (Italian/Dutch/Swedish/Spanish)	ARC1520	17	Cardboard Spacer	AHB1246
3	Operating Instructions about HDMI (English/French/Spanish/ Italian/Dutch/Swedish/Spanish)	ARE1375	18	Top Pad	AHB1247
4	Remote Control Unit	AXD1481	19	Accessory Box	AHC1051
5	Battery Cover	AZN7919	20	Carton E	See Contrast table(2)
NSP 6	Battery (R6P/AA) (2P)	AEX1026	NSP 21	Literature Bag	AHG1303
 7	System-cable (3m)	ADF1021	22	Laminated Sheet Bag	AHG1332
 8	Power Cord	ADG1214	23	Vinyl Bag	AHG1337
9	Screw Hole Cap	AMR3363	24	Vinyl Bag	AHG1340
10	User Card A	ARY1139	25	Screw	PMB40P120FZK
11	User Card B	ARY1140	26	Caution Card (10L)	ARM1234
12	Stand Assy	AXG1013	27	Caution Card	ARM1223
NSP 13	Stand Cushion	AEB1390	28	User Card C	ARY1142
NSP 14	Stand	AMR3352			
15	Laminated Sheet Bag	AHG1334			

(2) CONTRAST TABLE

PDP-R04E/WYVI6 and PDP-R04E/WYVI6XK are constructed the same except for the following:

Mark	NO	Symbol and Description	PDP-R04E/ WYVI6	PDP-R04E/ WYVI6XK
	20	Carton E	AHD3171	AHD3231

2.2 EXTERIOR SECTION



EXTERIOR SECTION parts List

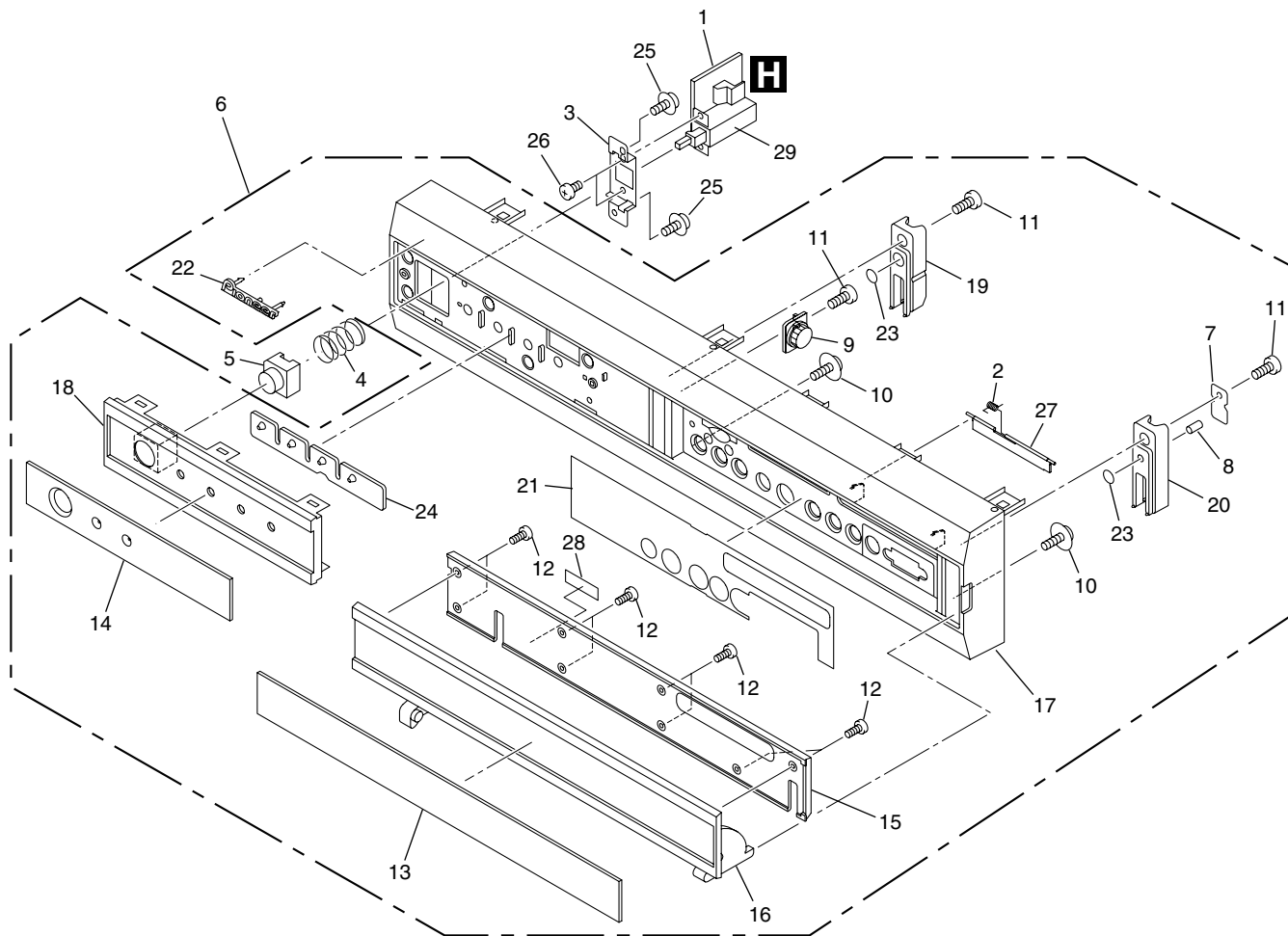
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	MR MAIN BOARD Assy	AWV2041	45	PCB Holder	AEC1097
2	AV BOARD Assy	AWZ6813	46	Spacer	AEC1256
3	MDR Assy	AWZ6778	47	Locking Card Spacer	AEC1429
4	SR Assy	AWZ6817	48	Wire Saddle	AEC1745
5	FRONT Assy	AWZ6832	49	Reuse Wire Saddle	AEC1945
6	LED Assy	AWZ6816	50	Edge Saddle	AEC1946
7	REG Assy	AWZ6814	51	Mini Card Spacer	AEC1959
⚠ 8	POWER SUPPLY Unit	AXY1065	52	Reuse Clamp	AEC1963
⚠ 9	PC Card Module	AXY1073	53	Mini Clamp	AEC1971
⚠ 10	AC INLET (CN1)	AKP1249	54	Card Spacer A	BEC1120
11	TRAP Switch	ASG1089	55	FFC Cushion	AEB1395
12	Fan Motor 60 x 25L	AXM1041	⚠ 56	DVI Shield S	ANG2639
13	Flexible Cable (J202)	ADD1209	57	DVI Cushion	AEB1396
14	Flexible Cable (J203)	ADD1210	58	Front Earth Plate	ANG2657
15	Flexible Cable (J206)	ADD1213	⚠ 59	Gasket F	ANK1722
16	Flexible Cable (J207)	ADD1214	60	Circuit Board Spacer	AEC1964
17	Flexible Cable (J208)	ADD1226	61	Silicon Sheet HDMI	AEB1379
18	Flexible Cable (J205)	ADD1245	⚠ 62	Scart Shield S	ANG2636
19	Wire Harness (J103)	ADX2831	⚠ 63	Scart Shield W	ANG2643
20	Earth Wire (J104)	ADX2832	⚠ 64	Shield Plate SF	ANG2649
21	15P Housing Wire (J105)	ADX2833	⚠ 65	PC Shield	ANG2578
22	3P Housing Wire (J107)	ADX2836	⚠ 66	HDMI Shield	ANG2646
23	3P Housing Wire (J108)	ADX2837	67	HL28	AEC1982
24	6P Housing Wire (J111)	ADX2852	68	Circuit Board Spacer	AEC1960
25	16P Housing Wire (J112)	ADX2859	69	Clamp	AEC1884
26	7P Housing Wire (J113)	ADX2860	70	Mini Card Spacer	AEC1983
27	Heatsink HDMI	ANH1618	71	PC Guide	AMR3393
28	Base Chassis	ANA1771	72	Nyron Rivet	AEC1671
29	Front Chassis E	ANB1864	73	•••••	
30	Terminal Panel E	See Contrast table(2)	74	Label (BLUE 16)	AAX2787
31	Center Stay	ANG2564	75	Eye Catching Label	AAX3011
32	Leg Assy	AXG1012	76	Hexagonal Head Screw	BBA1051
33	SR Holder E	ANG2581	77	Screw	ABZ30P080FZK
34	Fan Holder	ANG2568	78	Screw	BBB30P080FMC
35	Insulation Rubber	AEB1377	79	Screw	BBZ30P060FZK
36	Barrier A	AEC1936	80	Screw	BMZ30P060FNI
37	Metal Bonnet Top	ANE1615	81	Screw	BPZ30P100FZK
38	Metal Bonnet Bottom	ANE1616	82	Screw	CBZ30P080FZK
⚠ 39	Front Shield A	ANG2615	83	Screw	PMZ26P060FZK
⚠ 40	Front Shield C E	ANG2640	84	Screw	ABZ30P060FMC
⚠ 41	Gasket A	ANK1717	85	Screw	ABZ30P180FMC
⚠ 42	Gasket B	ANK1718	86	Screw	BMZ30P060FMC
⚠ 43	Gasket C	ANK1719			
⚠ 44	Gasket D	ANK1720			

(2) CONTRAST TABLE


PDP-R04E/WYVI6 and PDP-R04E/WYVI6XK are constructed the same except for the following:

Mark	NO	Symbol and Description	PDP-R04E/ WYVI6	PDP-R04E/ WYVI6XK
	30	Terminal Panel E	ANC2353	ANC2359

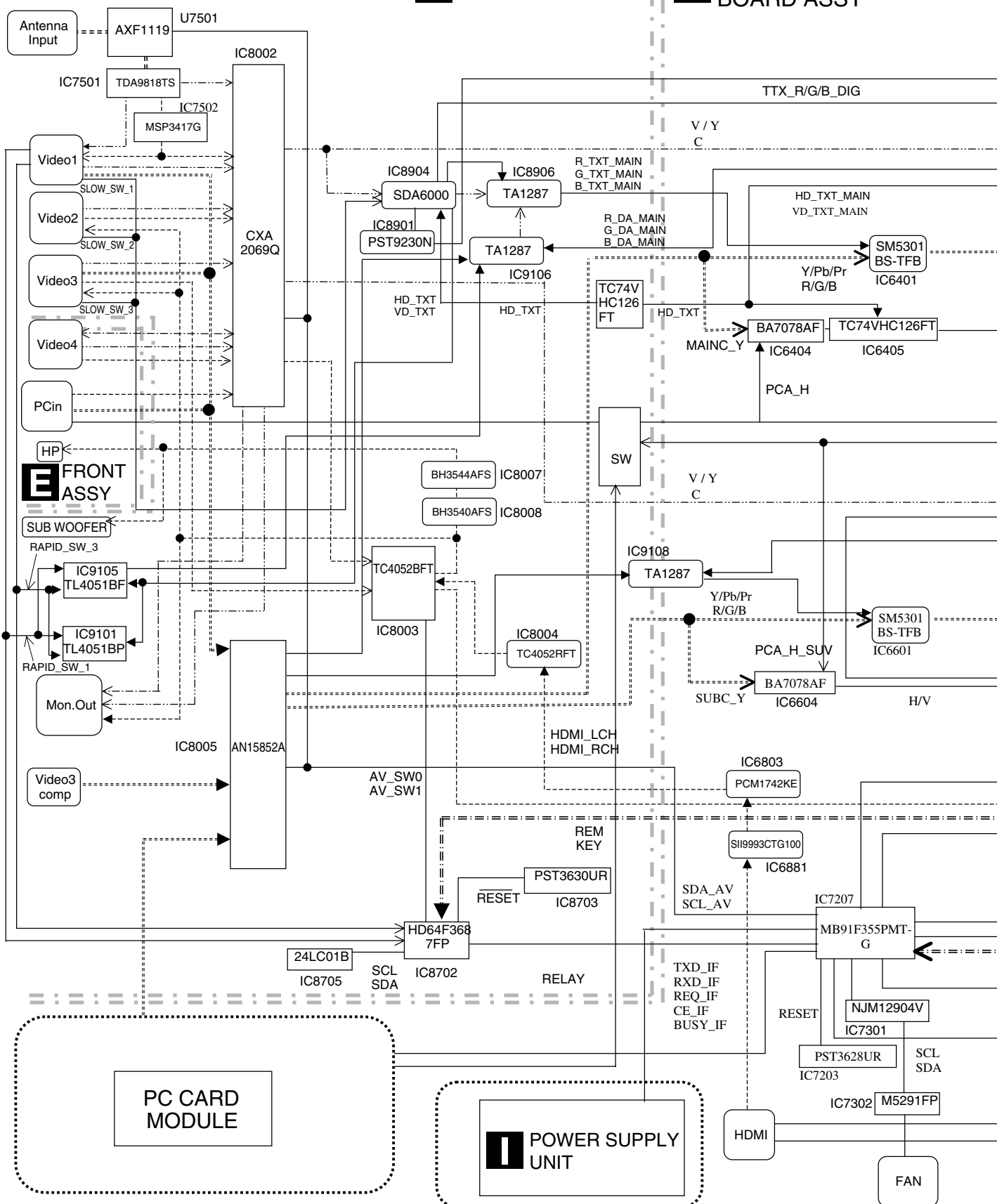
2.3 FRONT SECTION



FRONT SECTION parts List

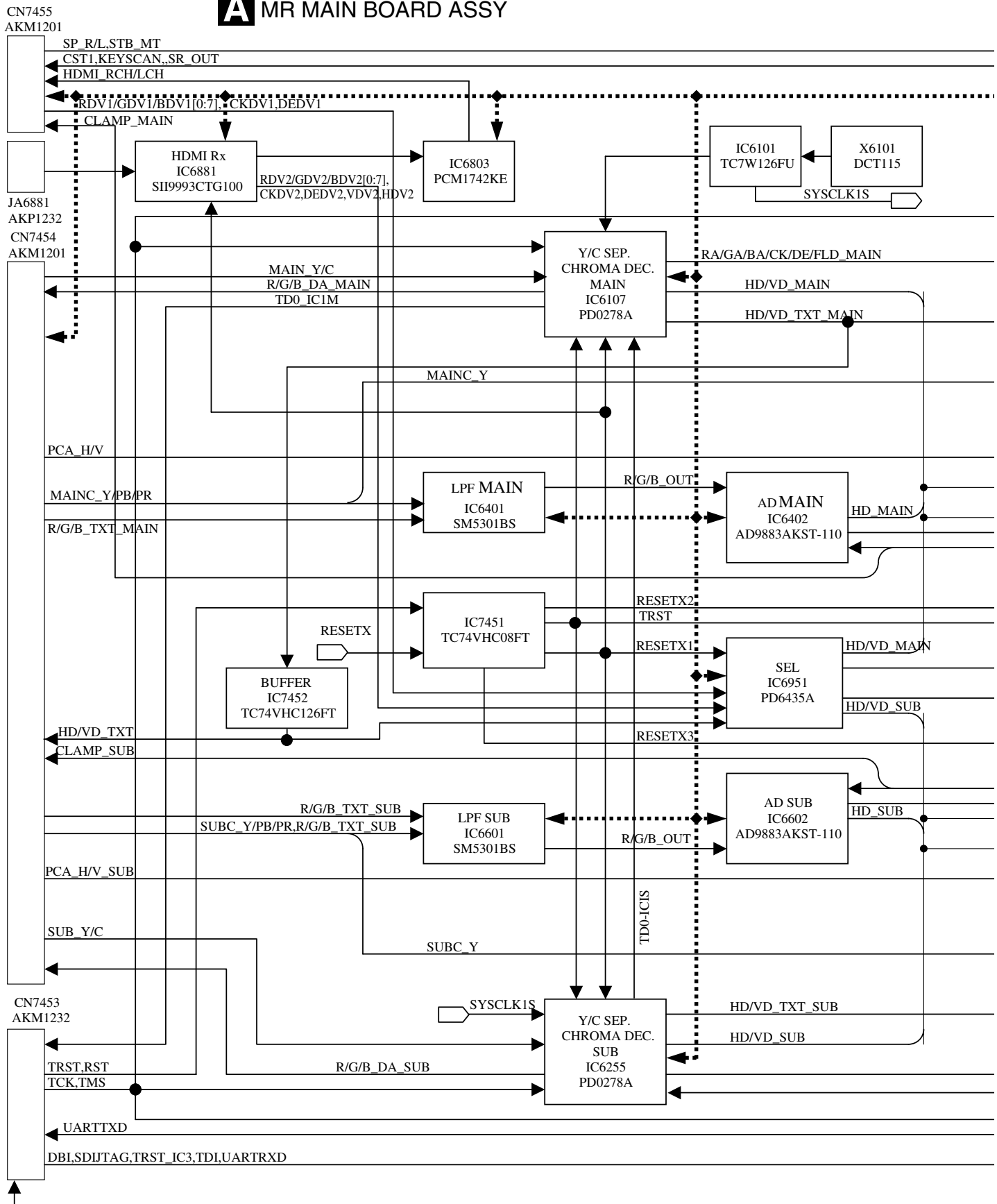
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	AC SW Assy	AWZ6783
2	PC Spring	ABH1112
3	SW Holder	ANG2565
4	SW Spring	ABH1109
5	Power Button	AAD4124
6	Front Panel Assy E	AXG1004
7	Magnet Holder	ANG2579
8	Magnet	AMF1003
9	Dumper	AXA1017
10	Special Screw 3x8	ABA1309
11	Screw	BPZ30P080FZK
12	Screw	JPZ20P035FNI
13	Panel A (EGC)	AAK2816
14	Panel B (EGC)	AAK2805
15	Door Inner Cover E	AAK2808
16	Door	AAN1469
17	Front Panel A E	AMB2772
18	Front Panel B	AMB2767
19	Door Cap L	AMR3360
20	Door Cap R	AMR3361
21	Sealing Sheet E	AAL2449
22	Pioneer Badge	VAM1124
23	Door Cushion	AEB1391
24	Lens for LED	AMR3353
25	Screw	APZ30P080FMC
26	Screw	BMZ30P060FMC
27	PC Card Door	AMR3365
28	Serial Sheet	AAX2609
 29	Power Switch (S1)	ASG1093

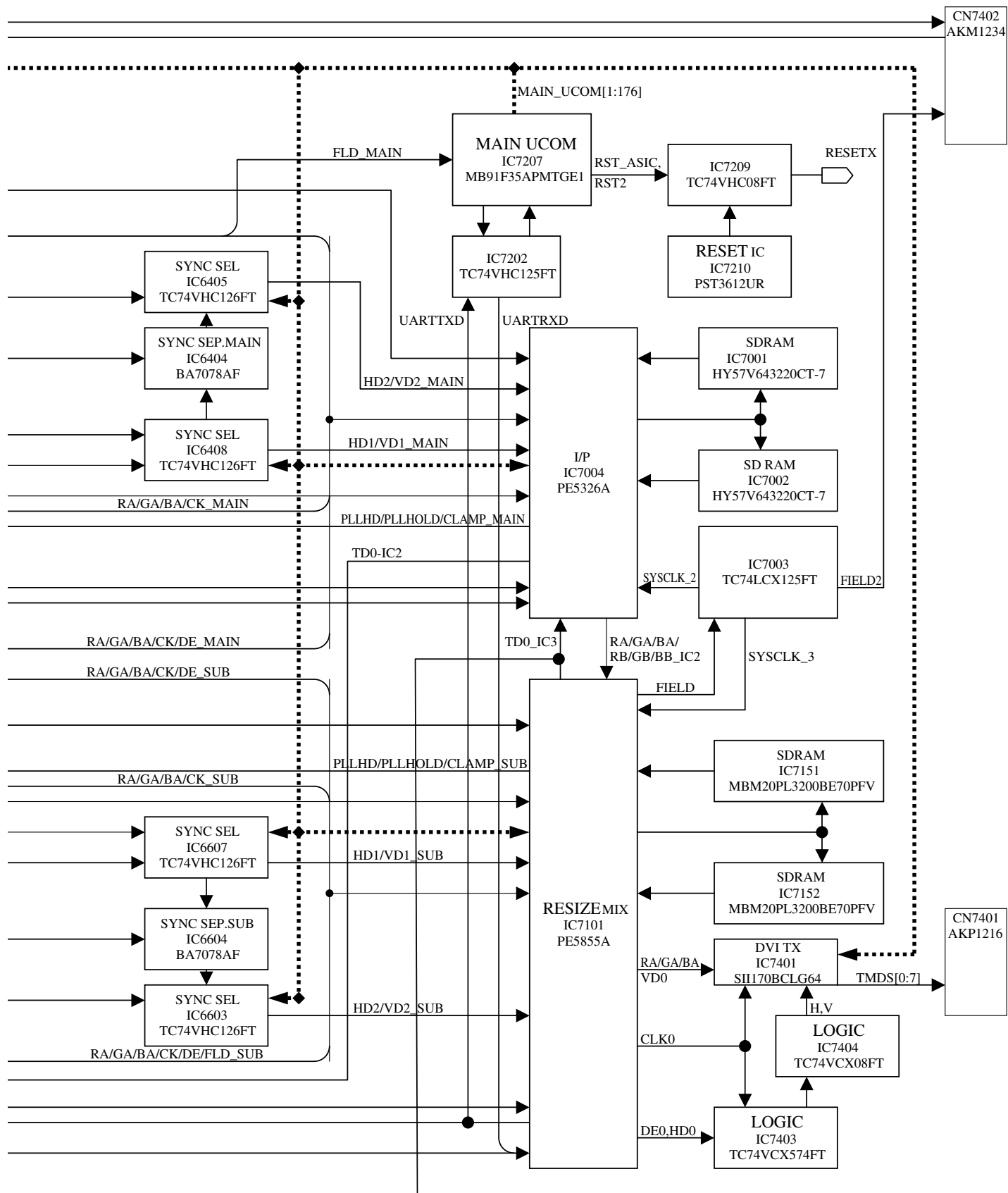
3.1.1 SIGNAL ROUTE



3.1.2 MR MAIN BOARD ASSY

A MR MAIN BOARD ASSY





A

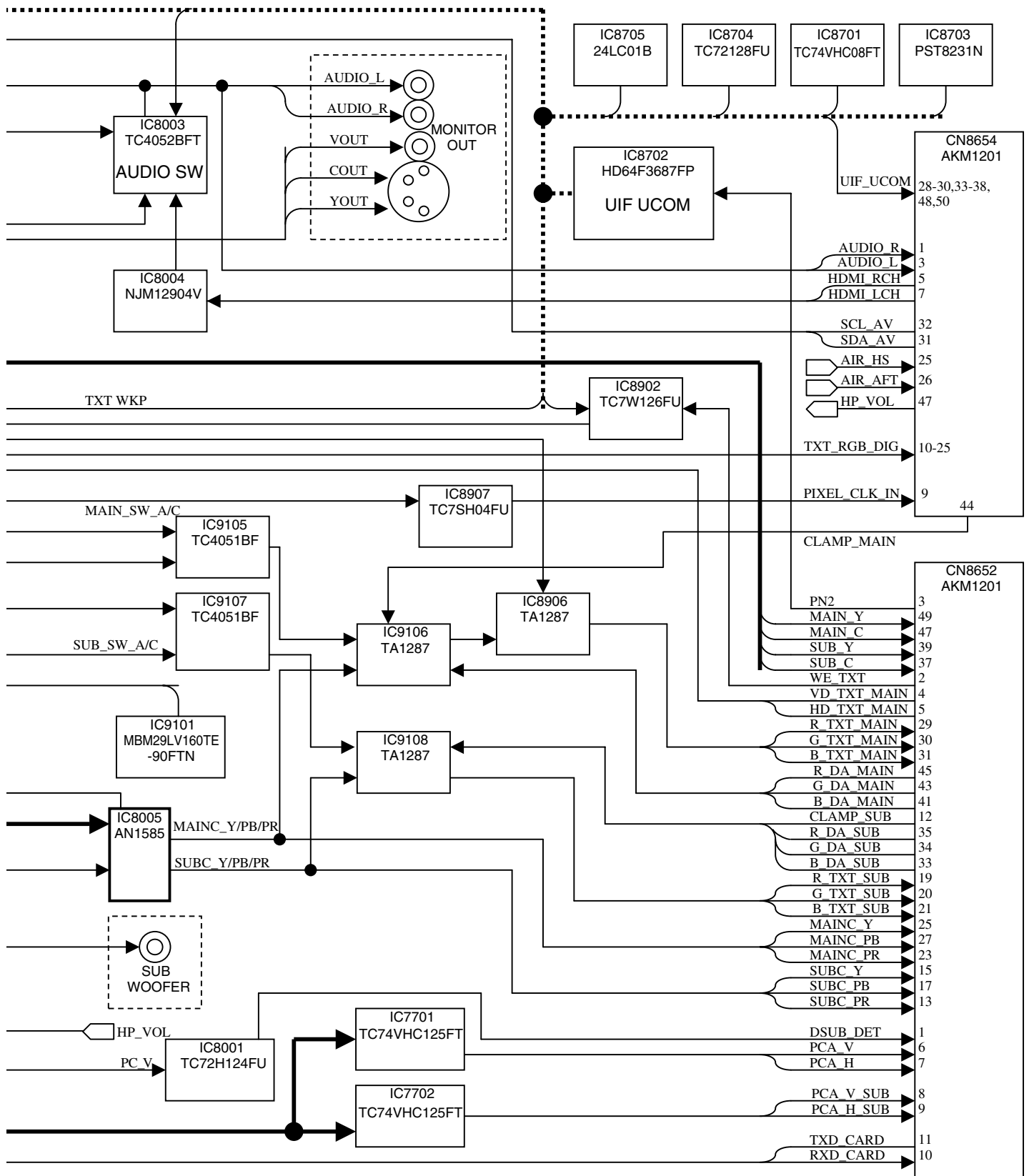
B



D

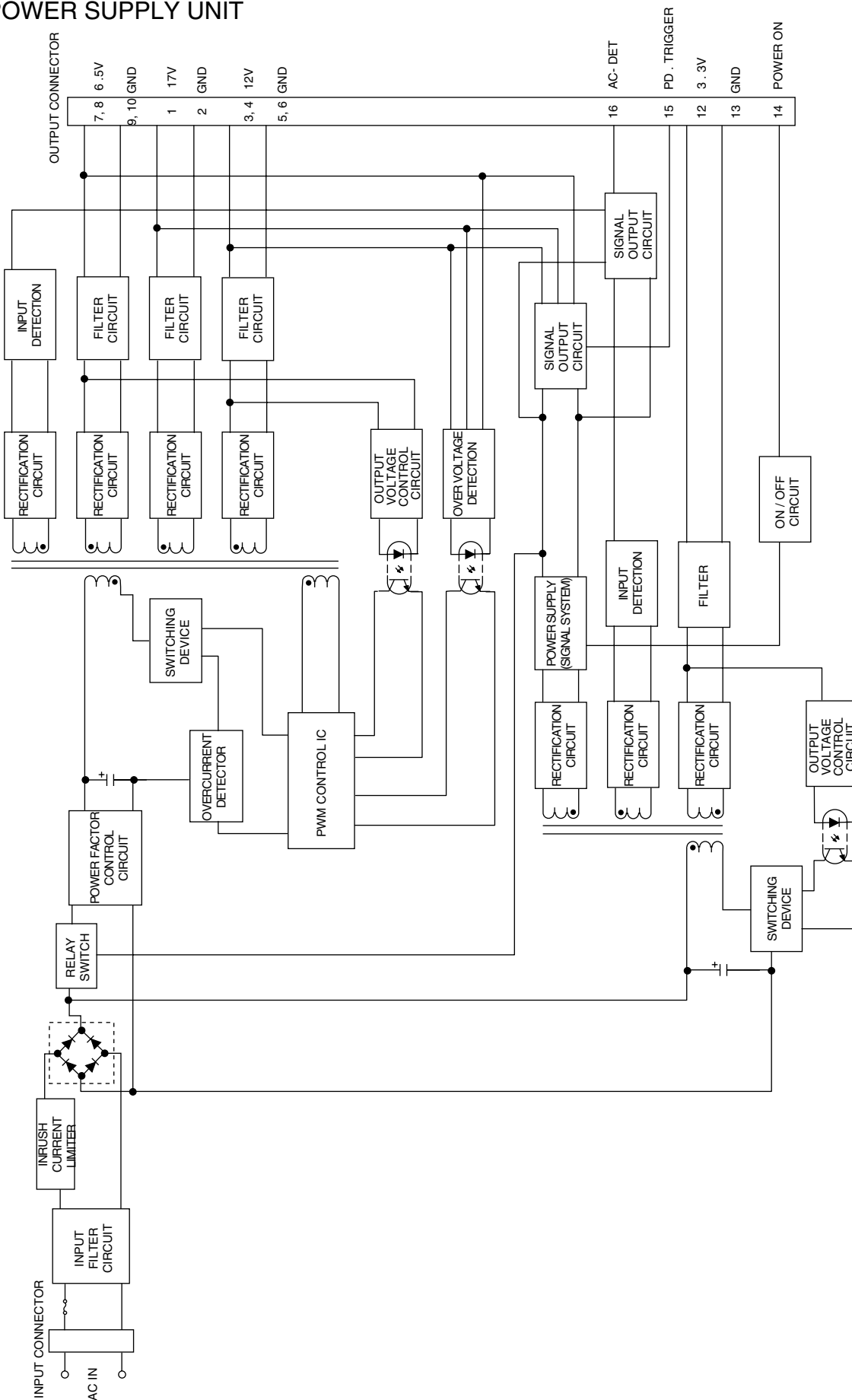
E

F



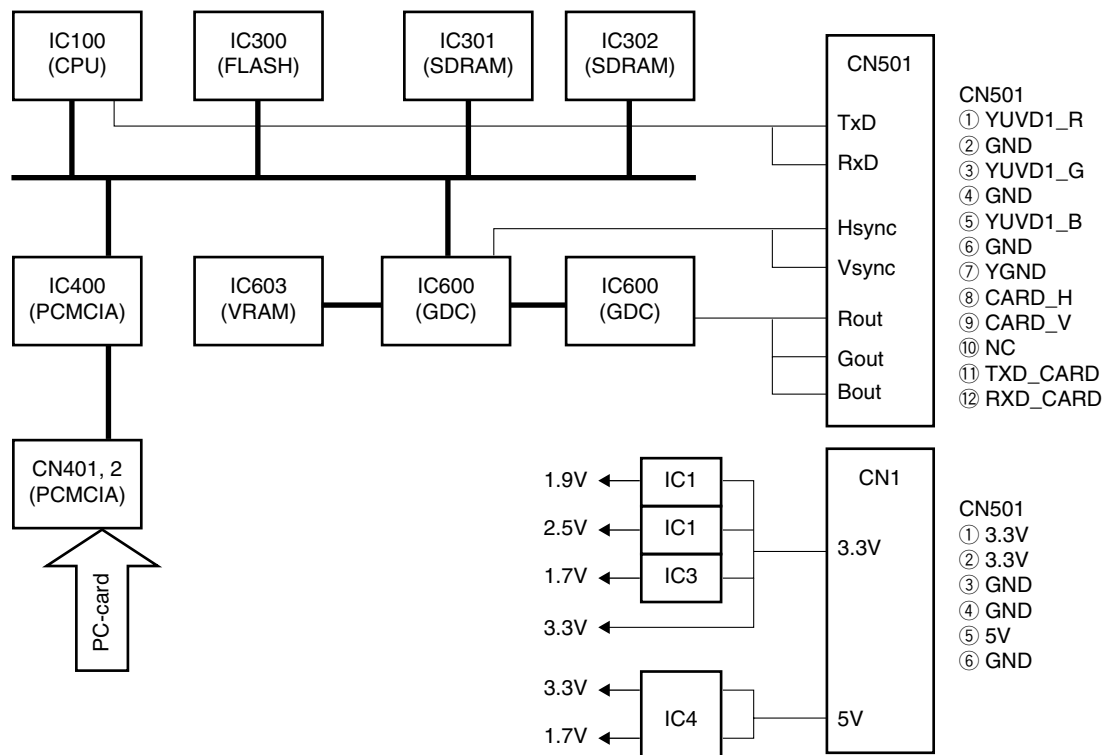
3.1.4 POWER SUPPLY UNIT

POWER SUPPLY UNIT



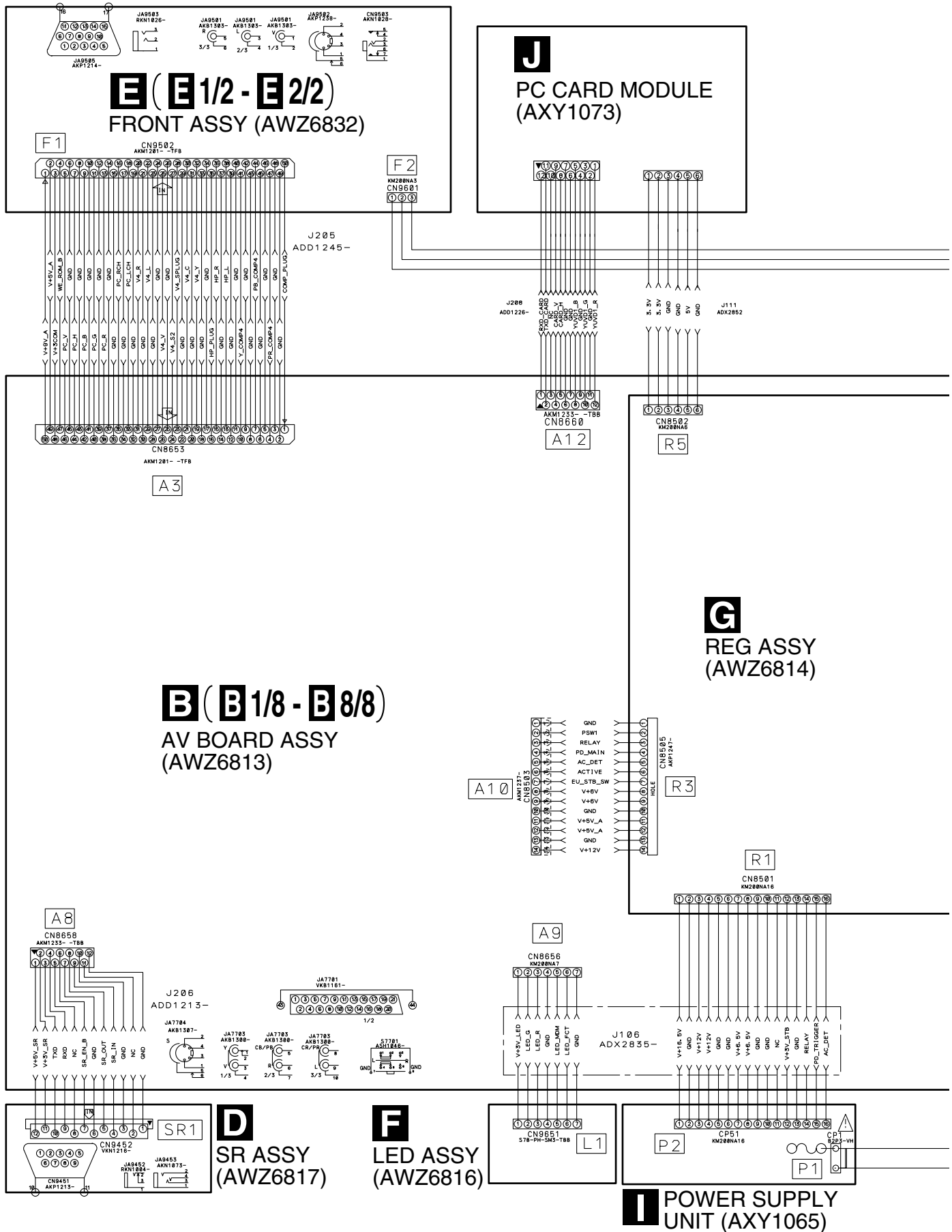
3.1.5 PC CARD MODULE

J PC CARD MODURE



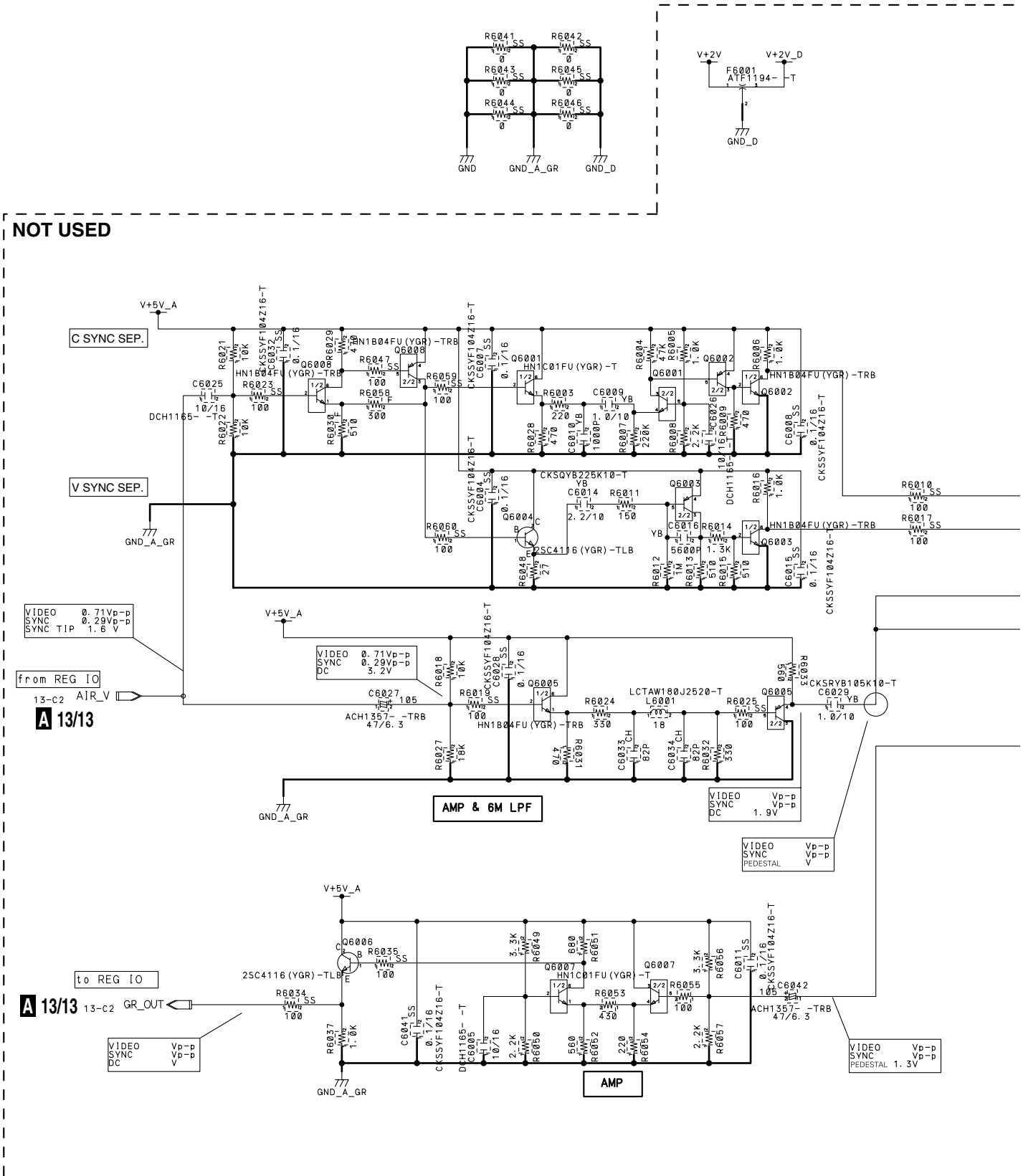
3.2 OVERALL WIRING DIAGRAM

A



3.3 MR MAIN BOARD ASSY (1/13)

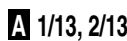
A 1/13 MR MAIN BOARD ASSY (AWV2041) ● GR BLOCK







A 3/13



A



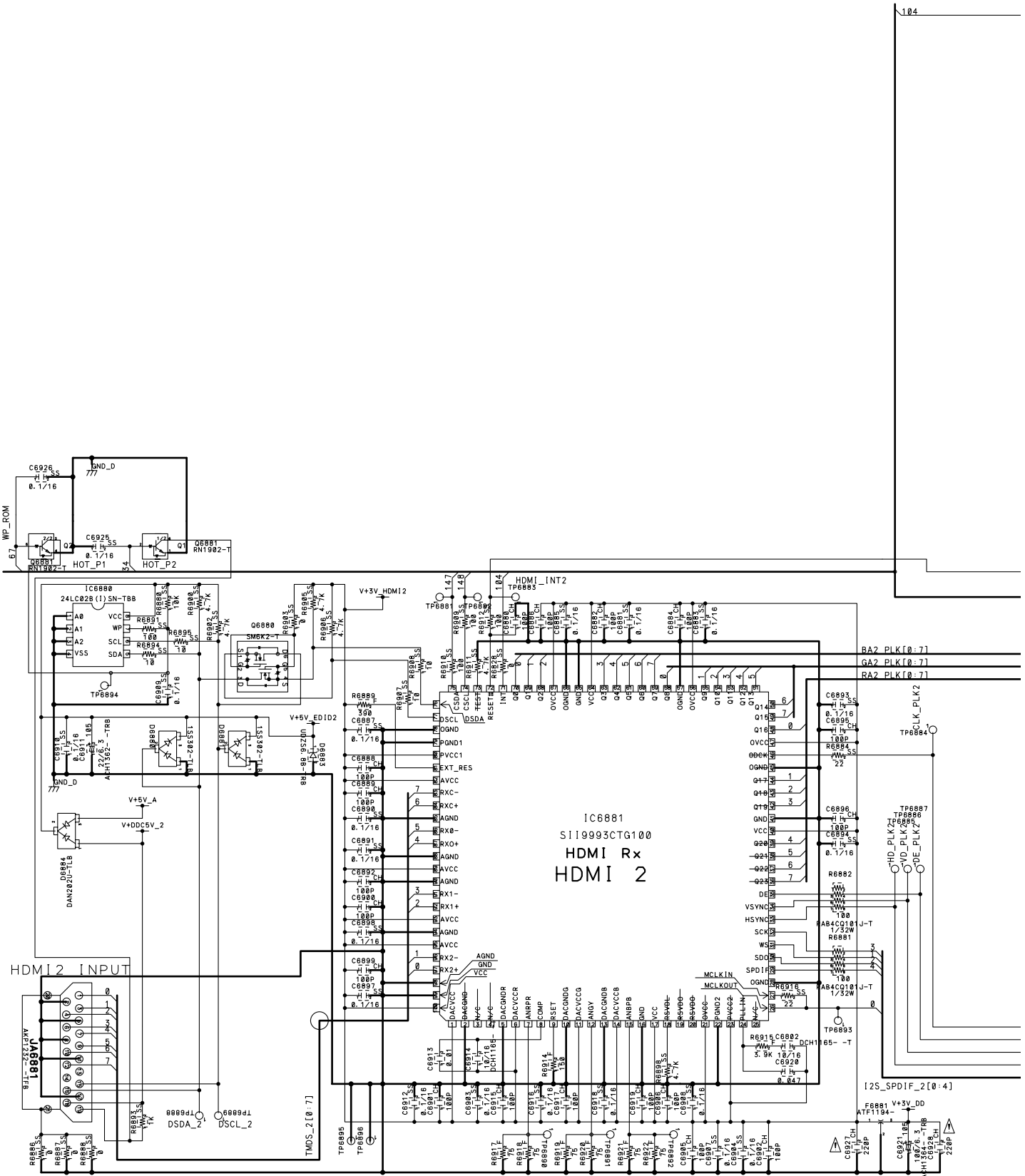
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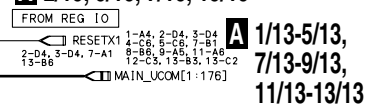


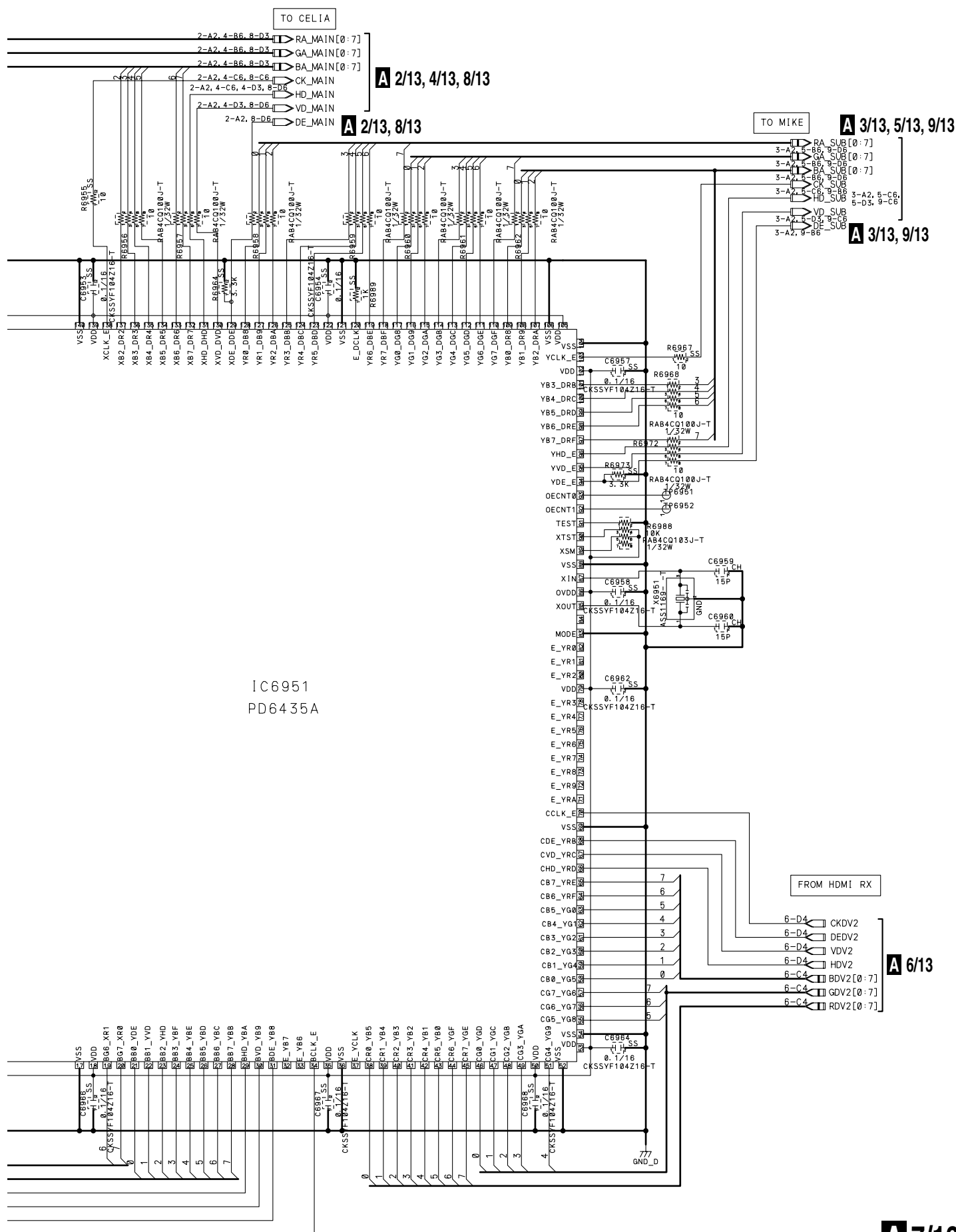
31

3.8 MR MAIN BOARD ASSY (6/13)

A 6/13 MR MAIN BOARD ASSY (AWV2041) ● HDMI RX BLOCK

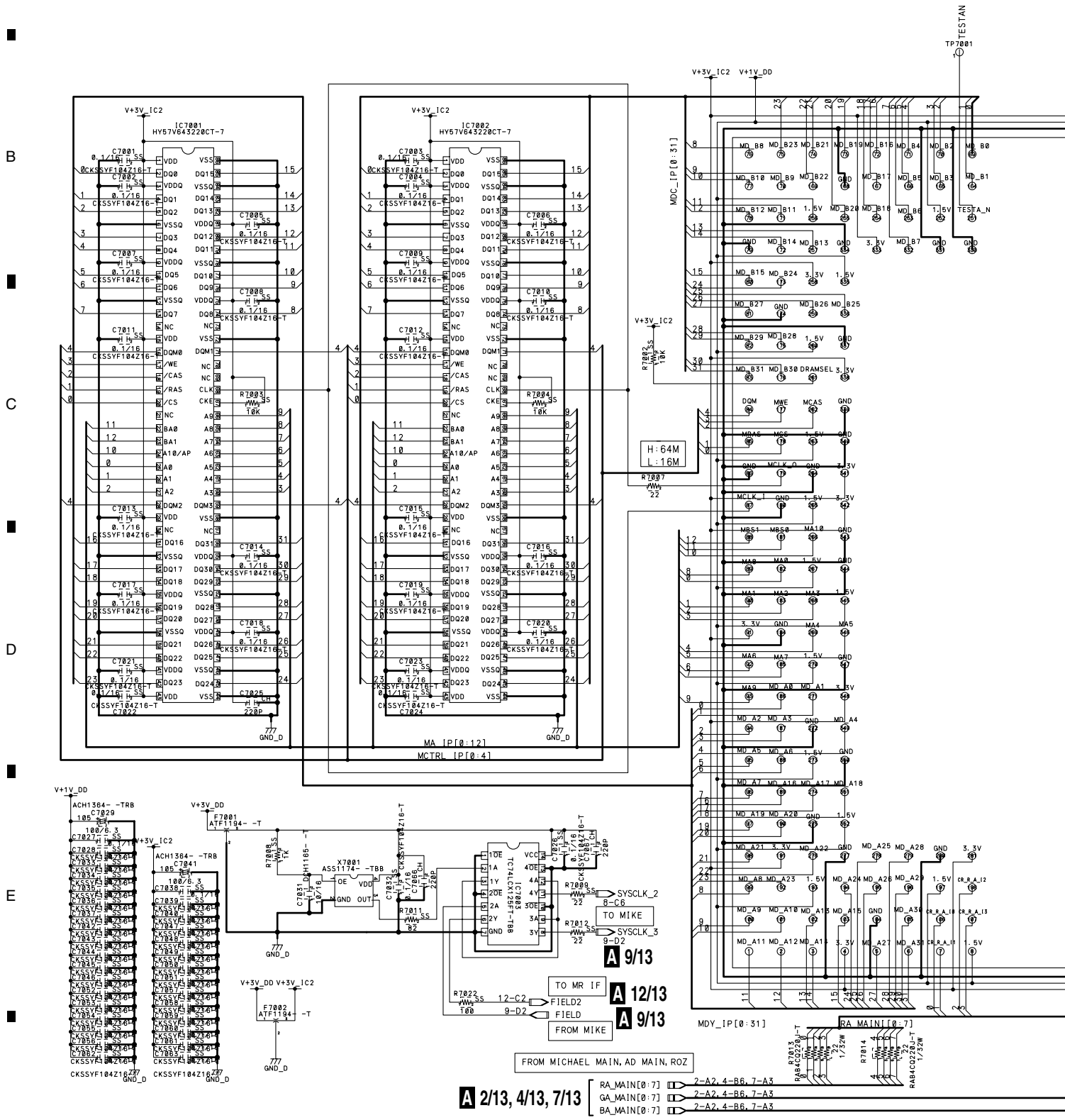






3.10 MR MAIN BOARD ASSY (8/13)

A 8/13 MR MAIN BOARD ASSY (AWV2041)
● CELIA BLOCK



A 2/13, 4/13, 7/13	RA_MAIN[0:7]	2-A2, 4-B6, 7-A3
	GA_MAIN[0:7]	2-A2, 4-B6, 7-A3
	BA_MAIN[0:7]	2-A2, 4-B6, 7-A3

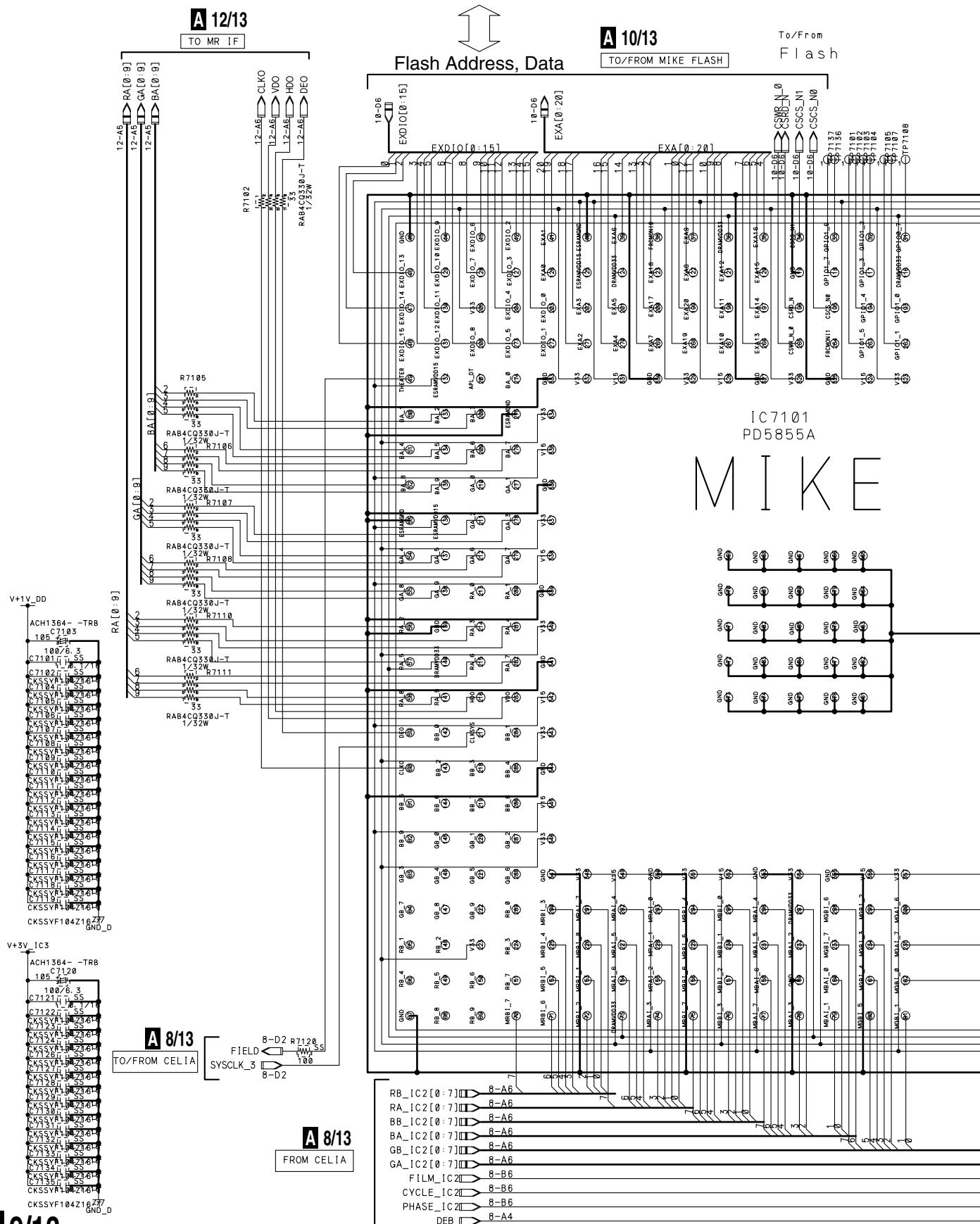


37

3.11 MR MAIN BOARD ASSY (9/13)

A 9/13 MR MAIN BOARD ASSY (AWV2041)

● MIKE BLOCK



■ 5 ■ 6 ■ 7 ■ 8 ■

A

B

C

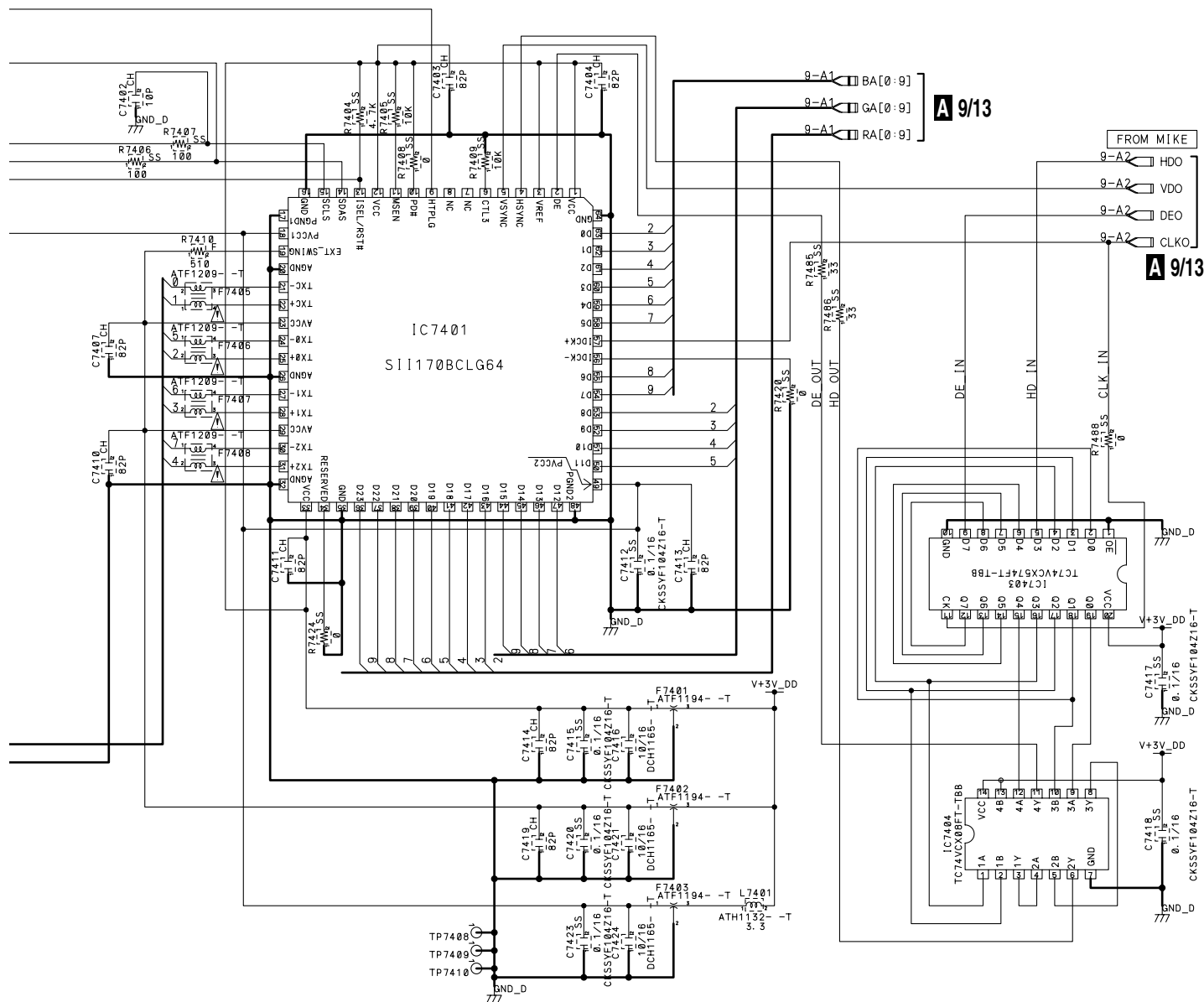
D

E

F



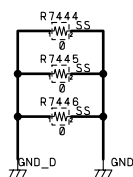
A 11/13



1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
7-B1, 9-B6, 9-A5
11-A6, 13-B3, 13-C2
11-MAIN_UCOM[1:176]

TO MAIN_UCOM

A 1/13-9/13,
11/13, 13/13

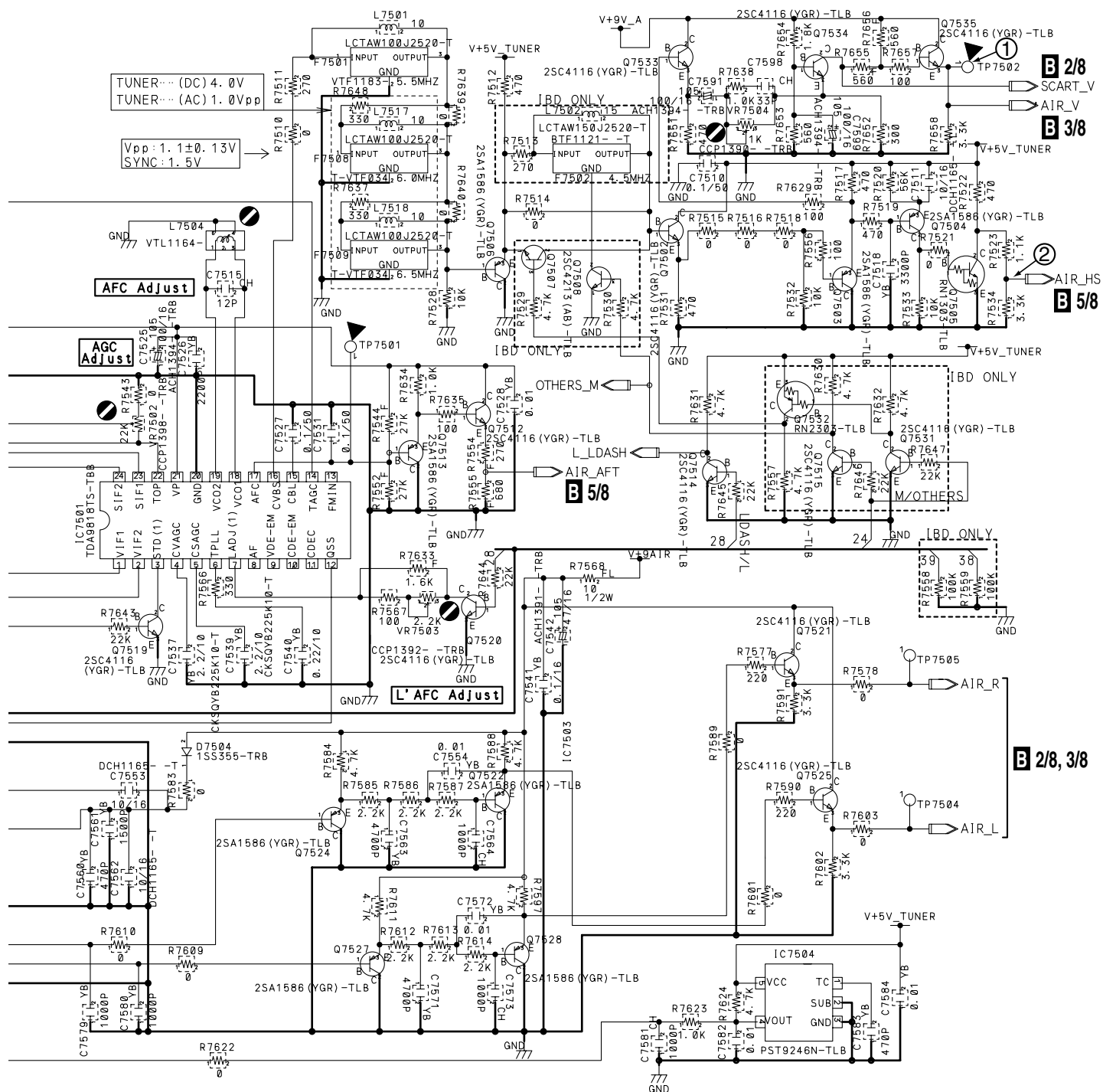


A 12/13

● REGULATOR BLOCK

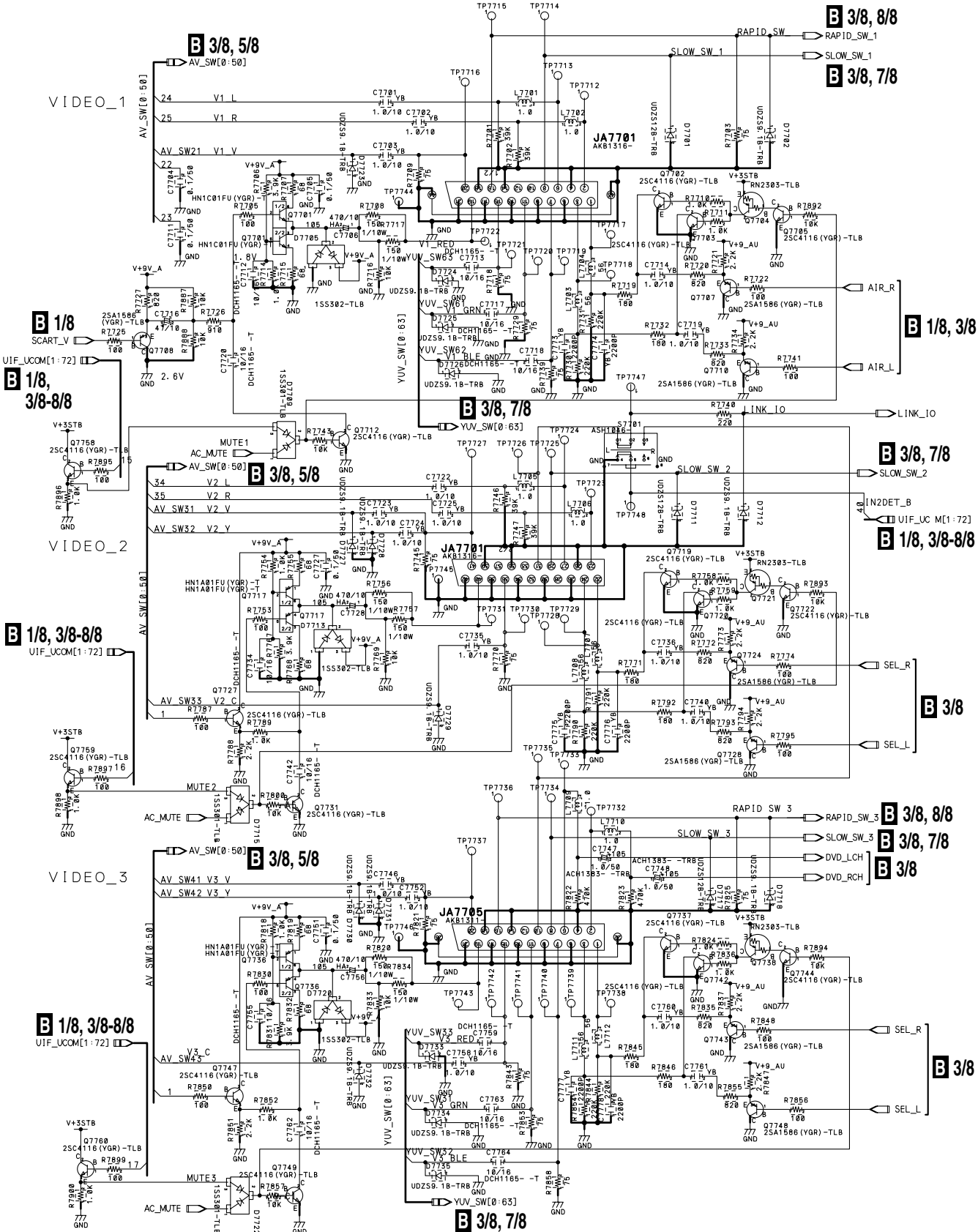
F





3.17 AV BOARD ASSY (2/8)

B 2/8 AV BOARD ASSY (AWZ6813) ● AV I/O BLOCK

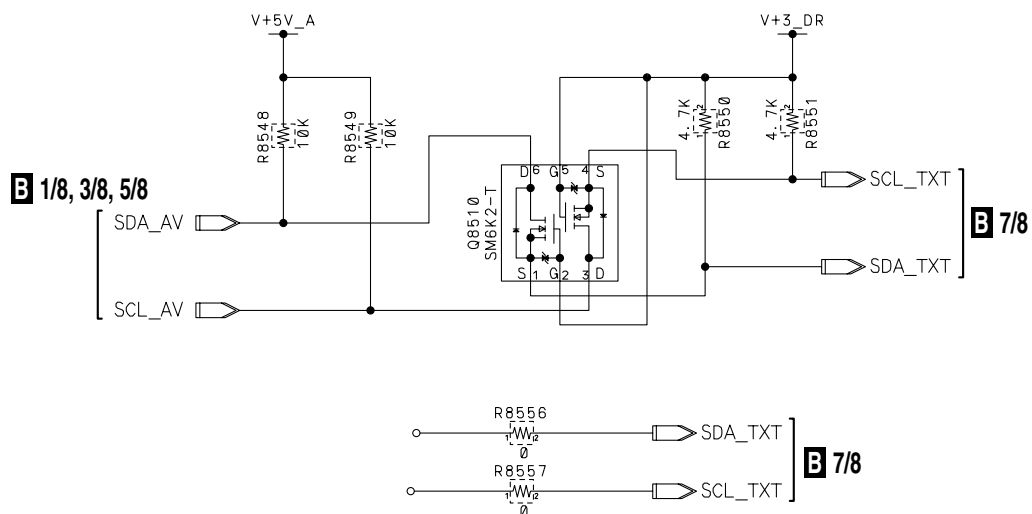
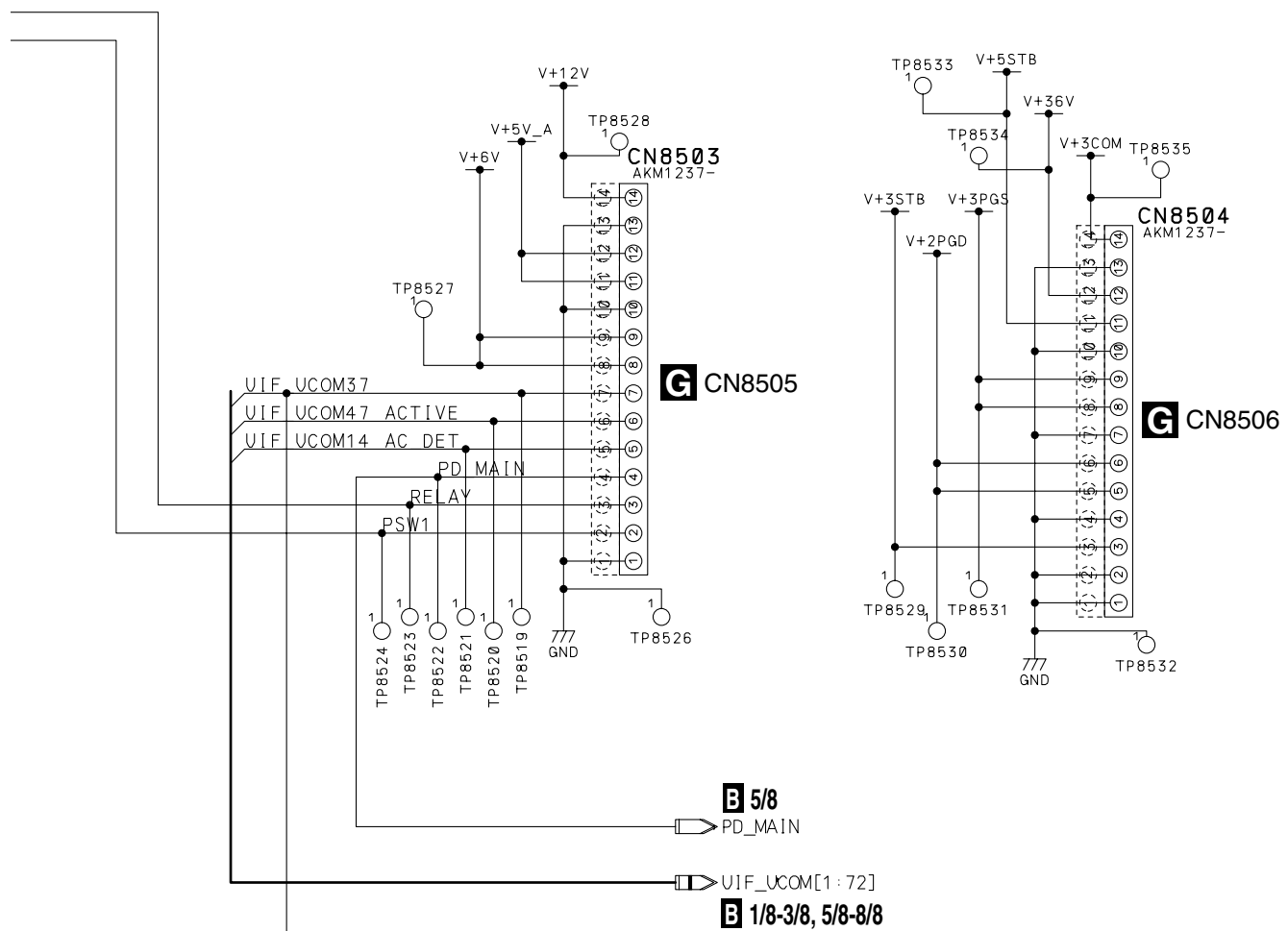


B 2/8



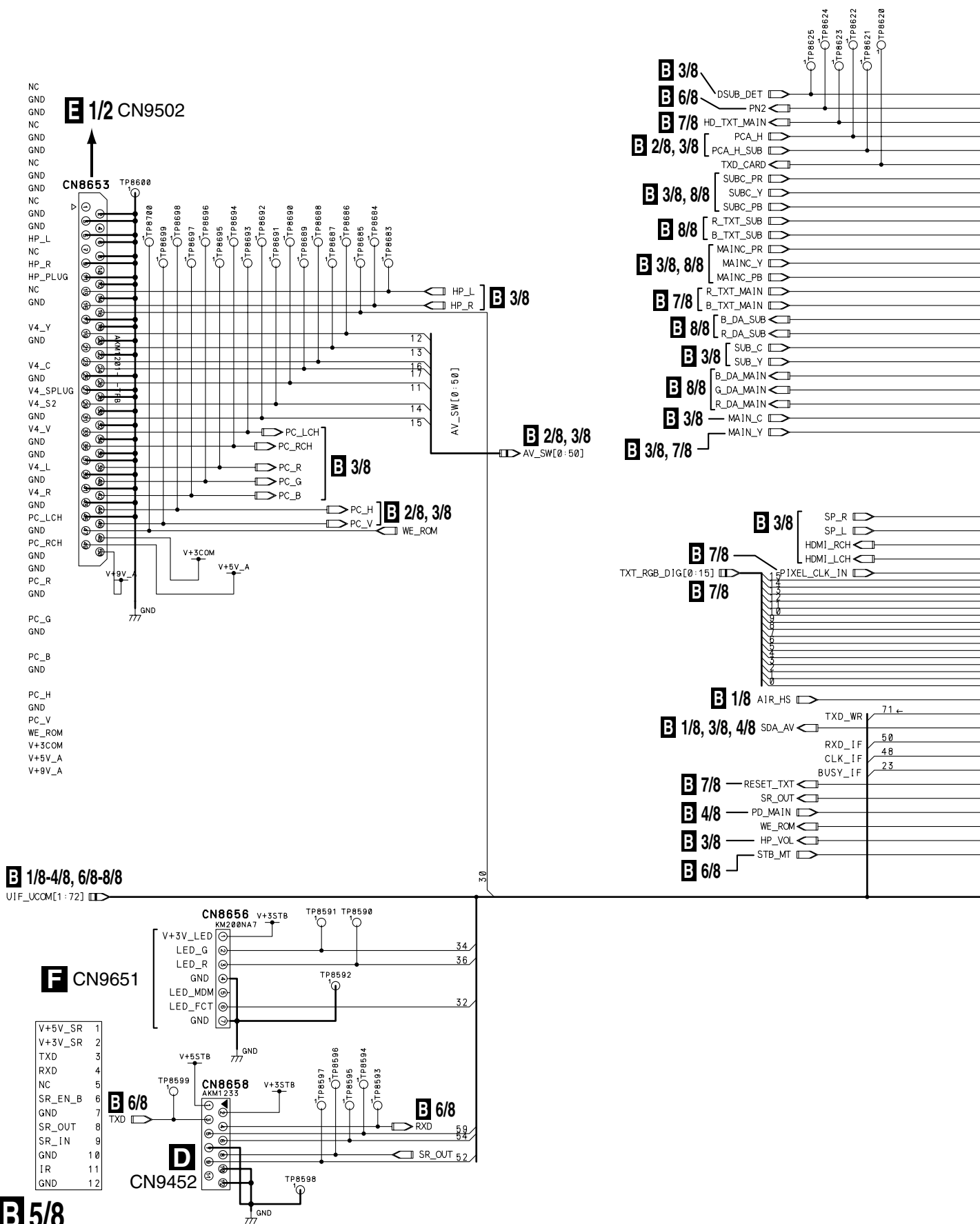
B 3/8 AV BOARD ASSY (AWZ6813)
● SW BLOCK





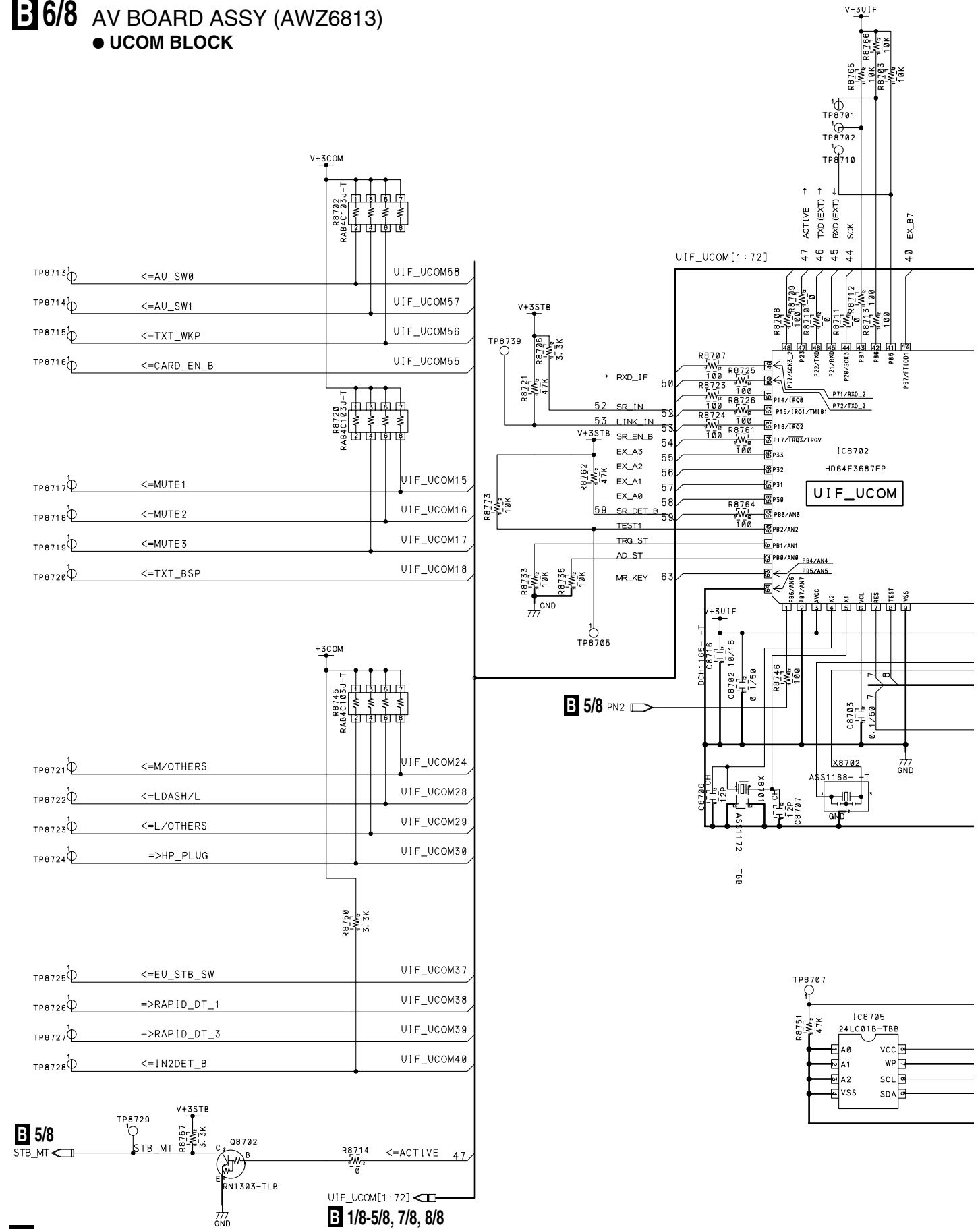
3.20 AV BOARD ASSY (5/8)

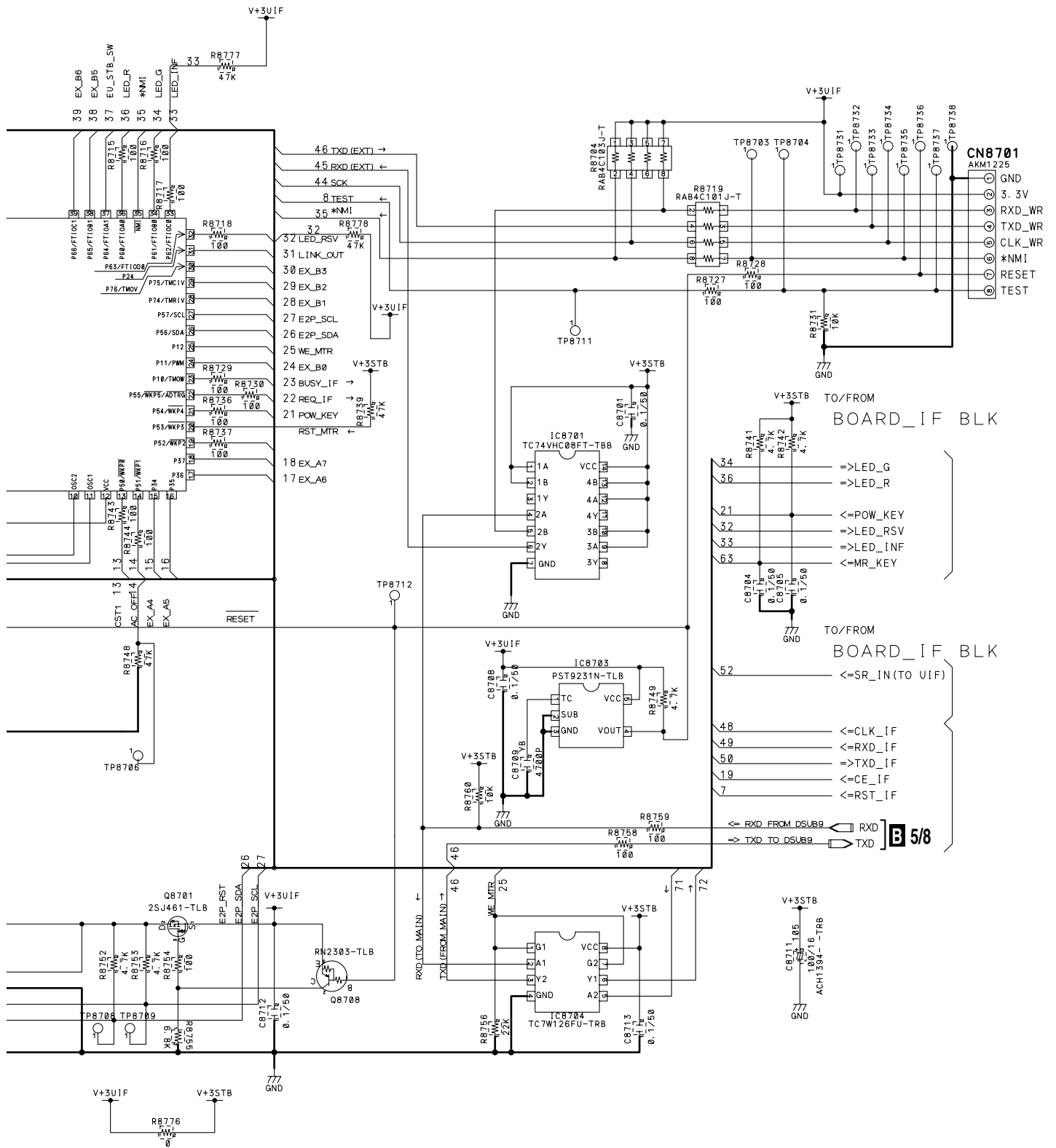
B 5/8 AV BOARD ASSY (AWZ6813) ● IF BLOCK



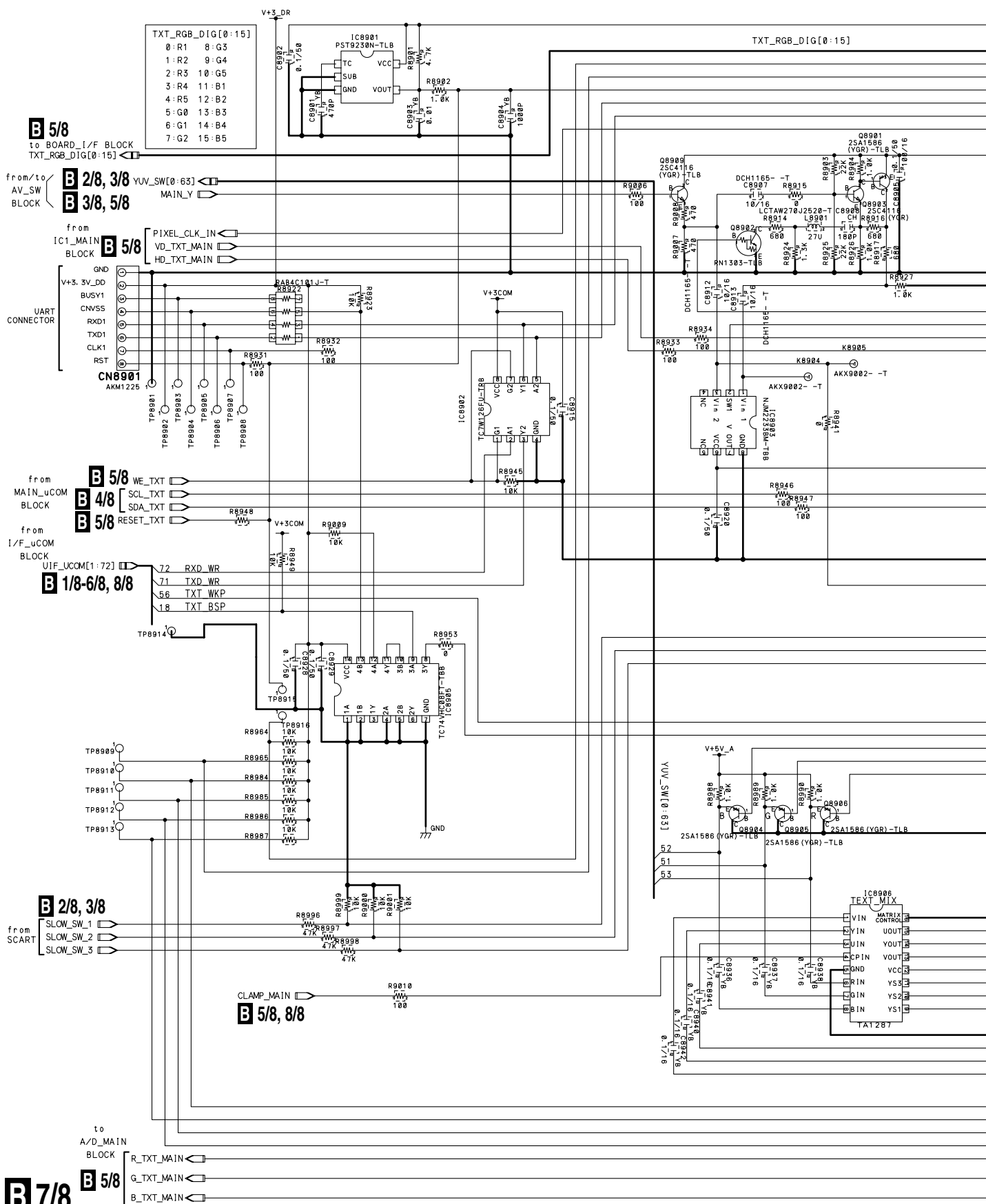
3.21 AV BOARD ASSY (6/8)

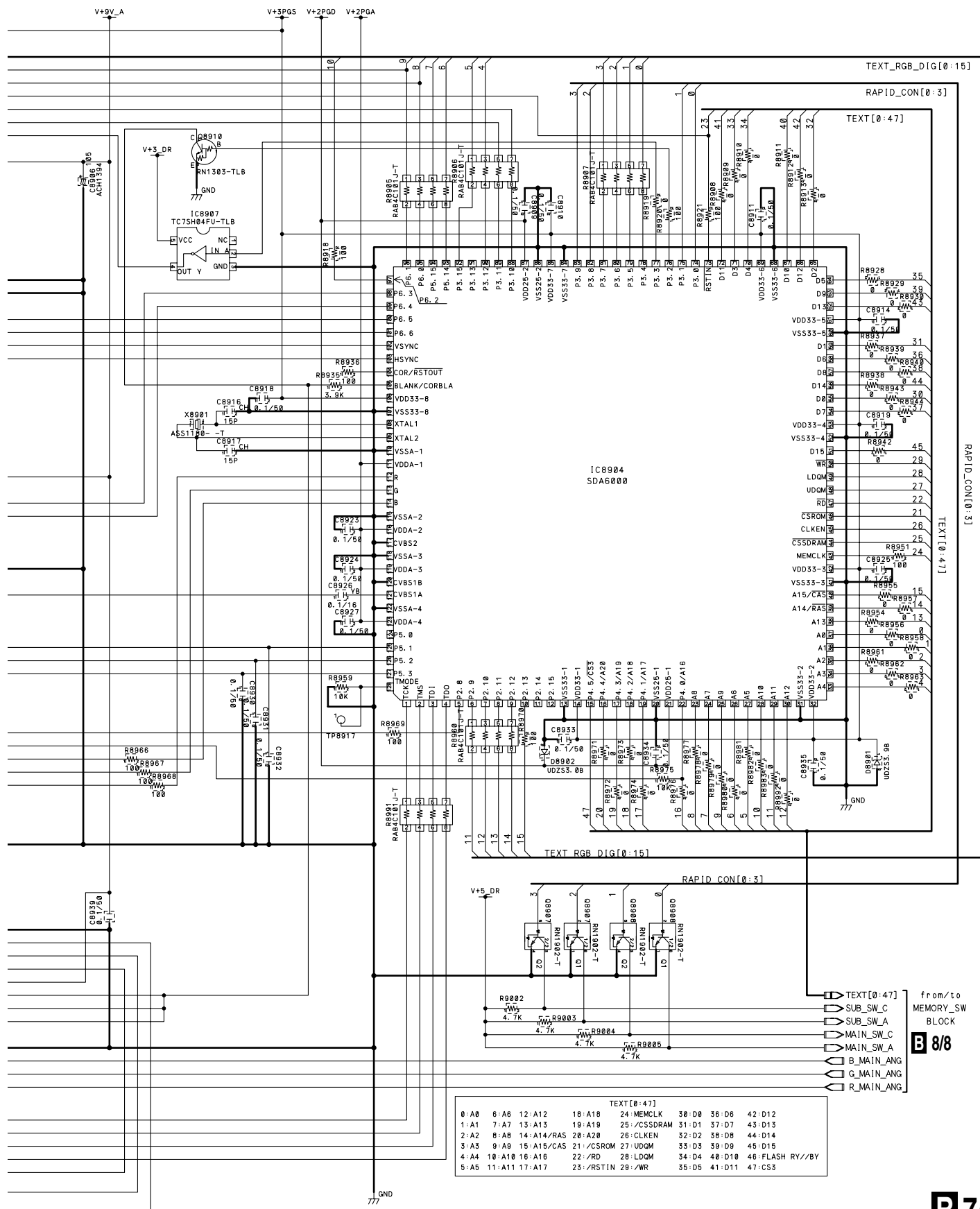
B 6/8 AV BOARD ASSY (AWZ6813) ● UCOM BLOCK





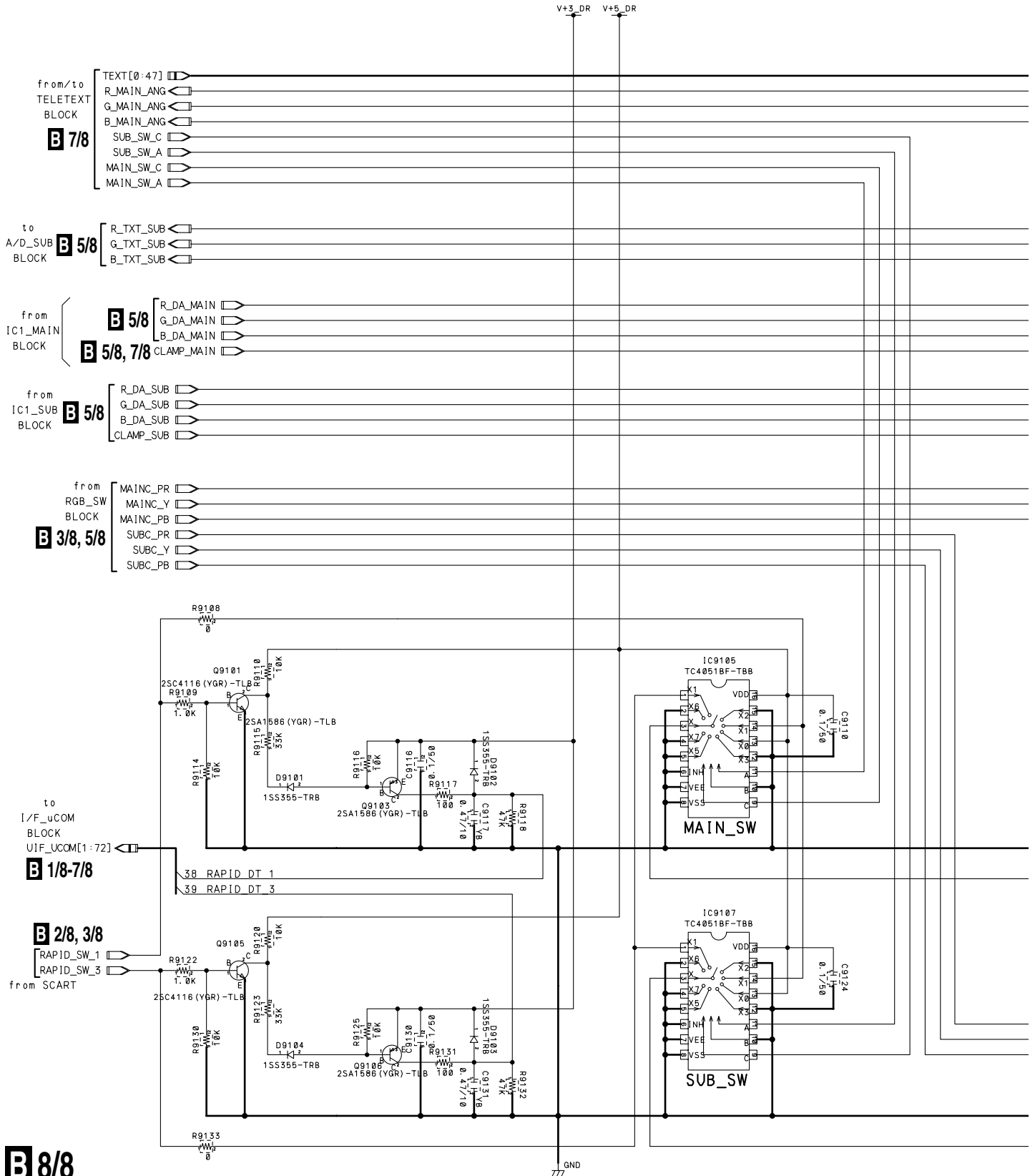
B7/8 AV BOARD ASSY (AWZ6813)
● TELE TEXT BLOCK





3.23 AV BOARD ASSY (8/8)

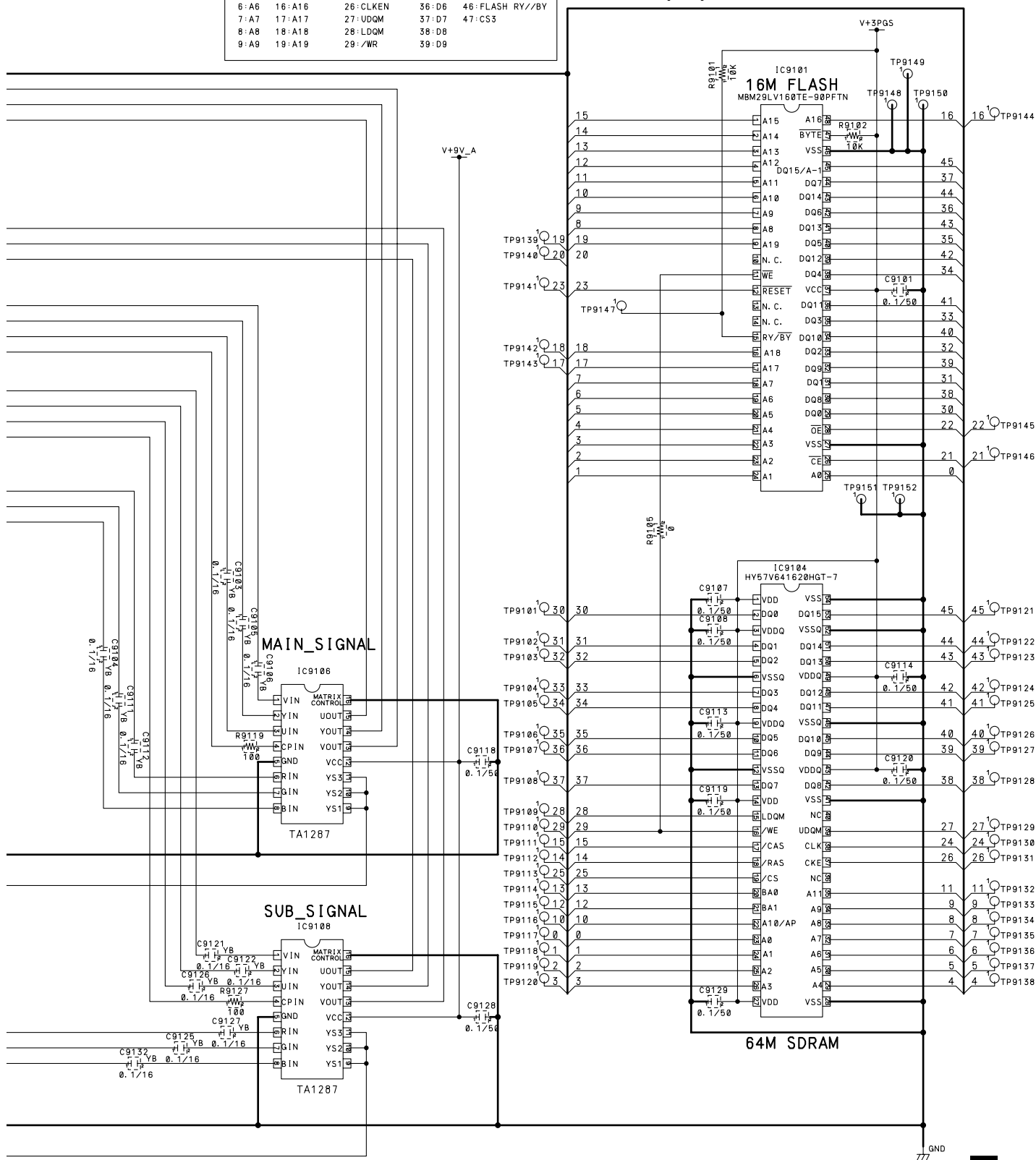
B 8/8 AV BOARD ASSY (AWZ6813) ● MEMORY_SW BLOCK



B 8/8

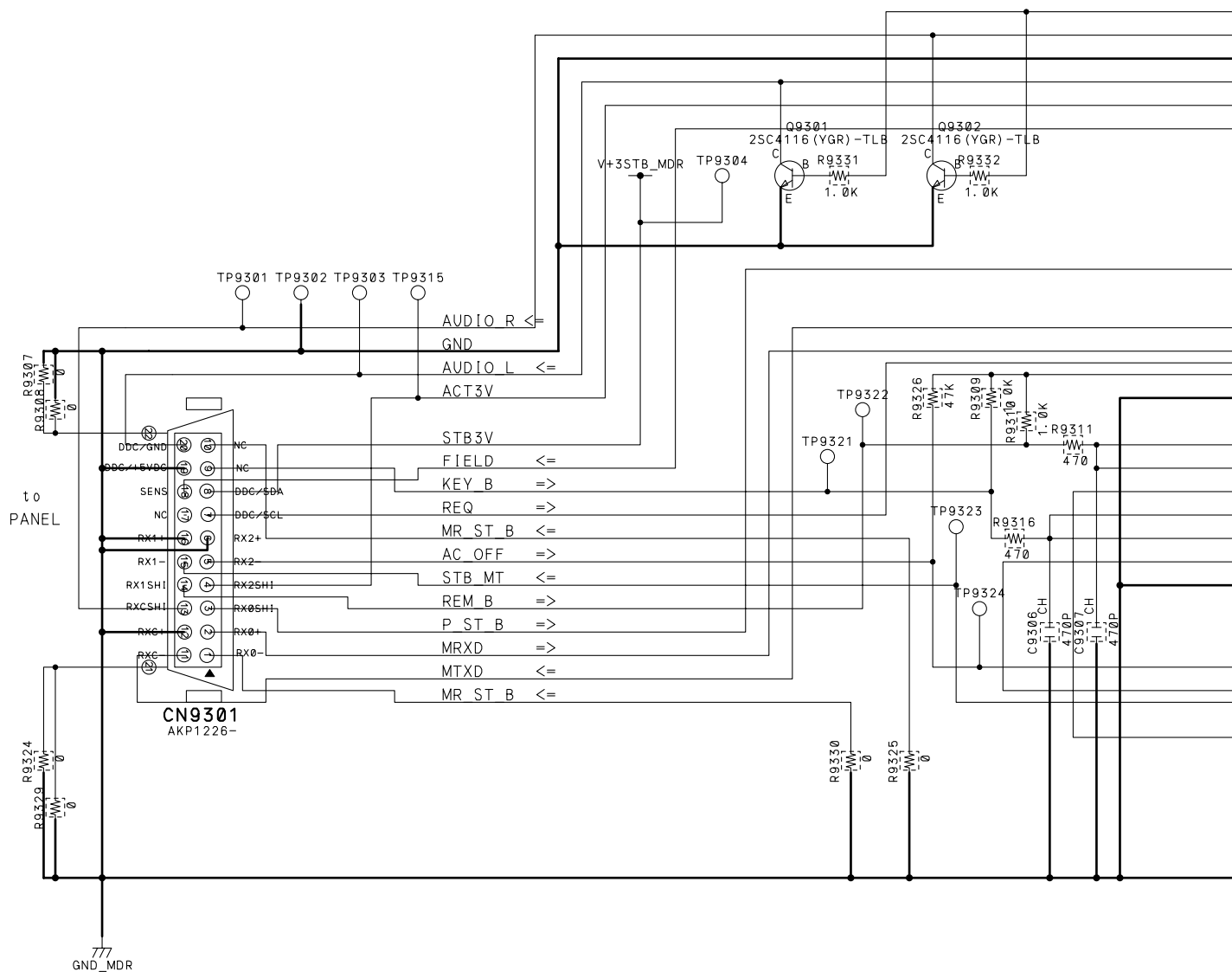
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1:A1	11:A11	21:/CSROM	31:D1	41:D11
2:A2	12:A12	22:/RD	32:D2	42:D12
3:A3	13:A13	23:/RSTIN	33:D3	43:D13
4:A4	14:A14/RAS	24:MEMCLK	34:D4	44:D14
5:A5	15:A15/CAS	25:/CSSDRAM	35:D5	45:D15
6:A6	16:A16	26:CLKEN	36:D6	46:FLASH RY//BY
7:A7	17:A17	27:UDQM	37:D7	47:CS3
8:A8	18:A18	28:LDQM	38:D8	
9:A9	19:A19	29:/WR	39:D9	

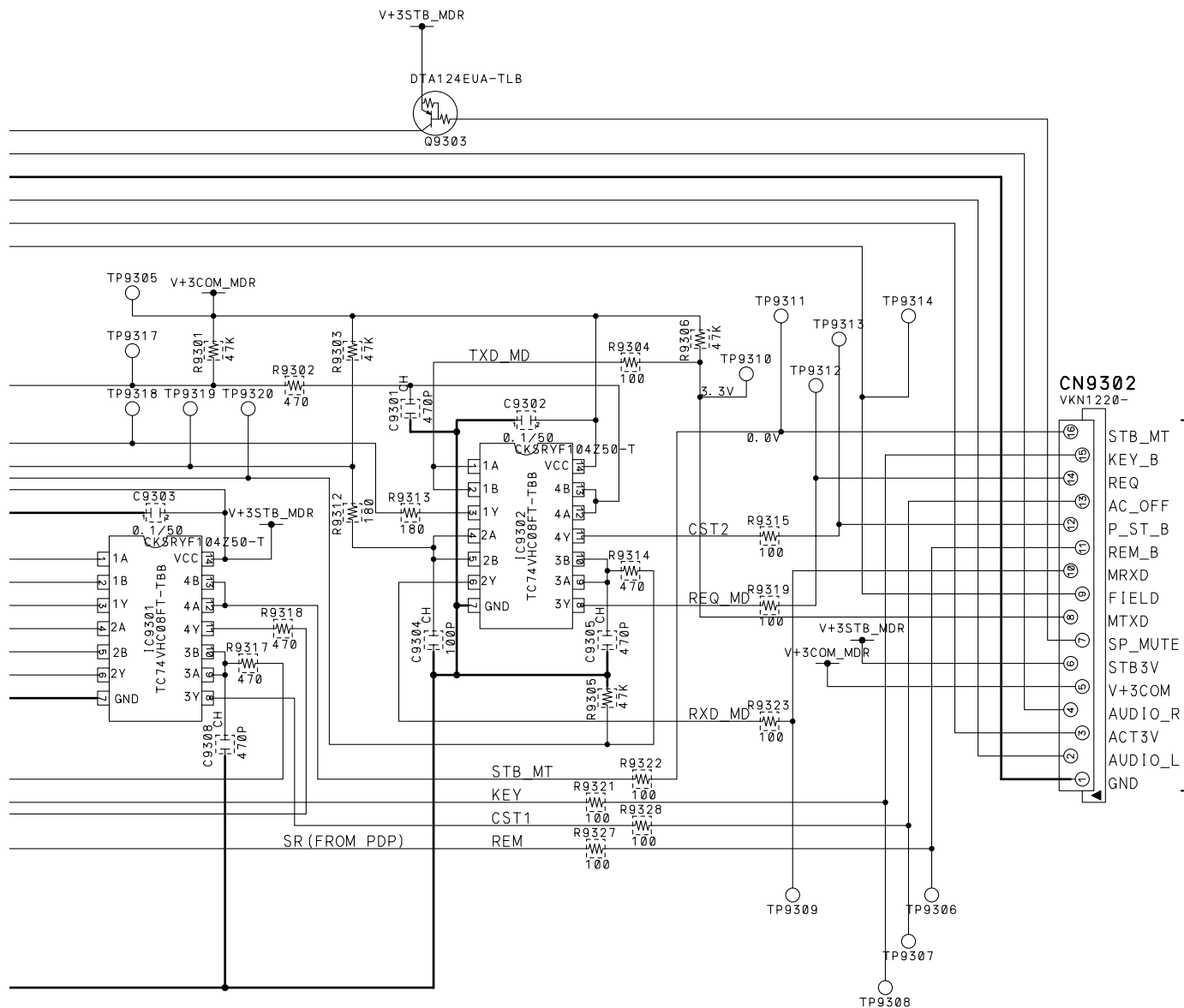
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3.24 MDR ASSY

C MDR ASSY (AWZ6778)

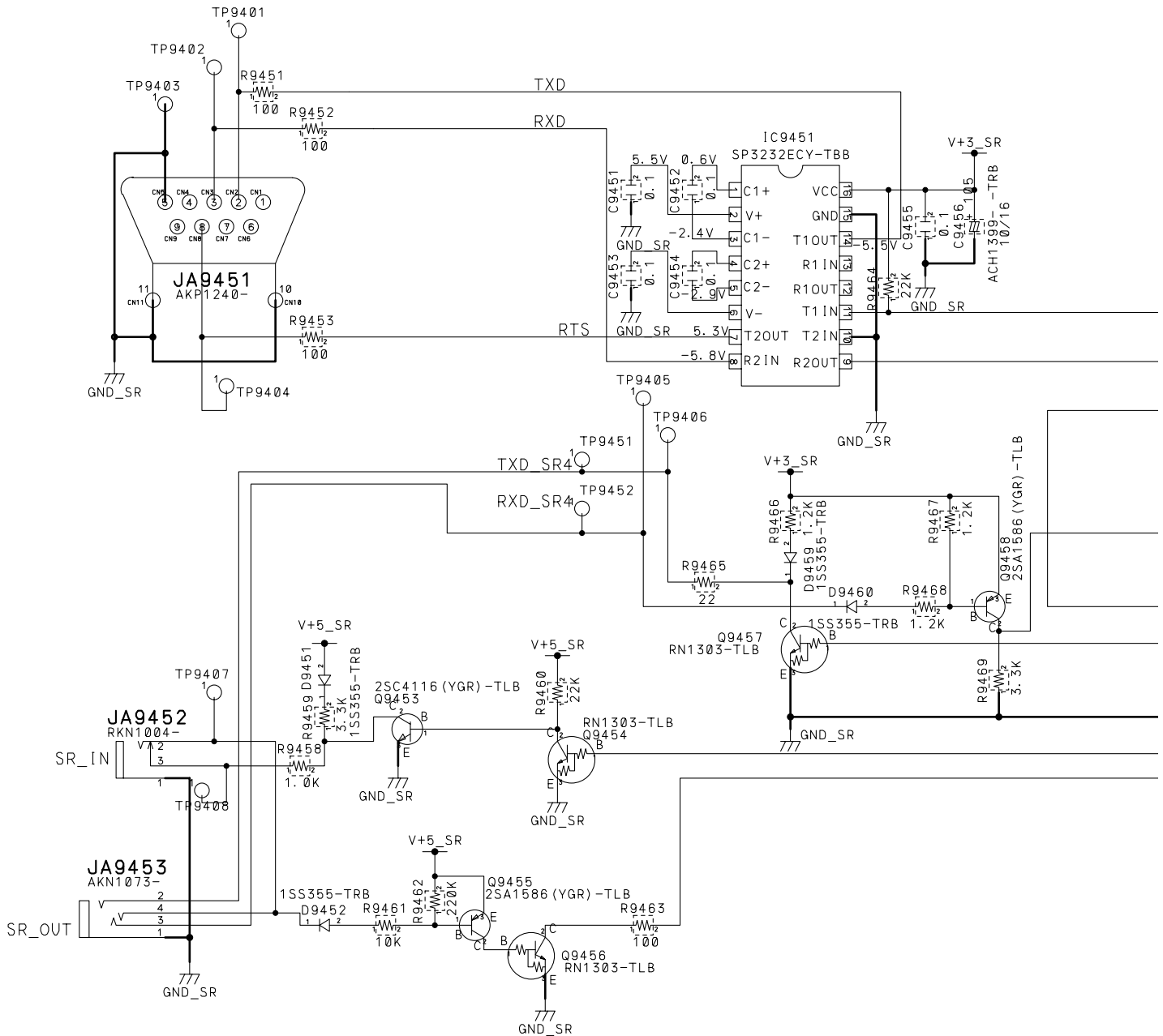


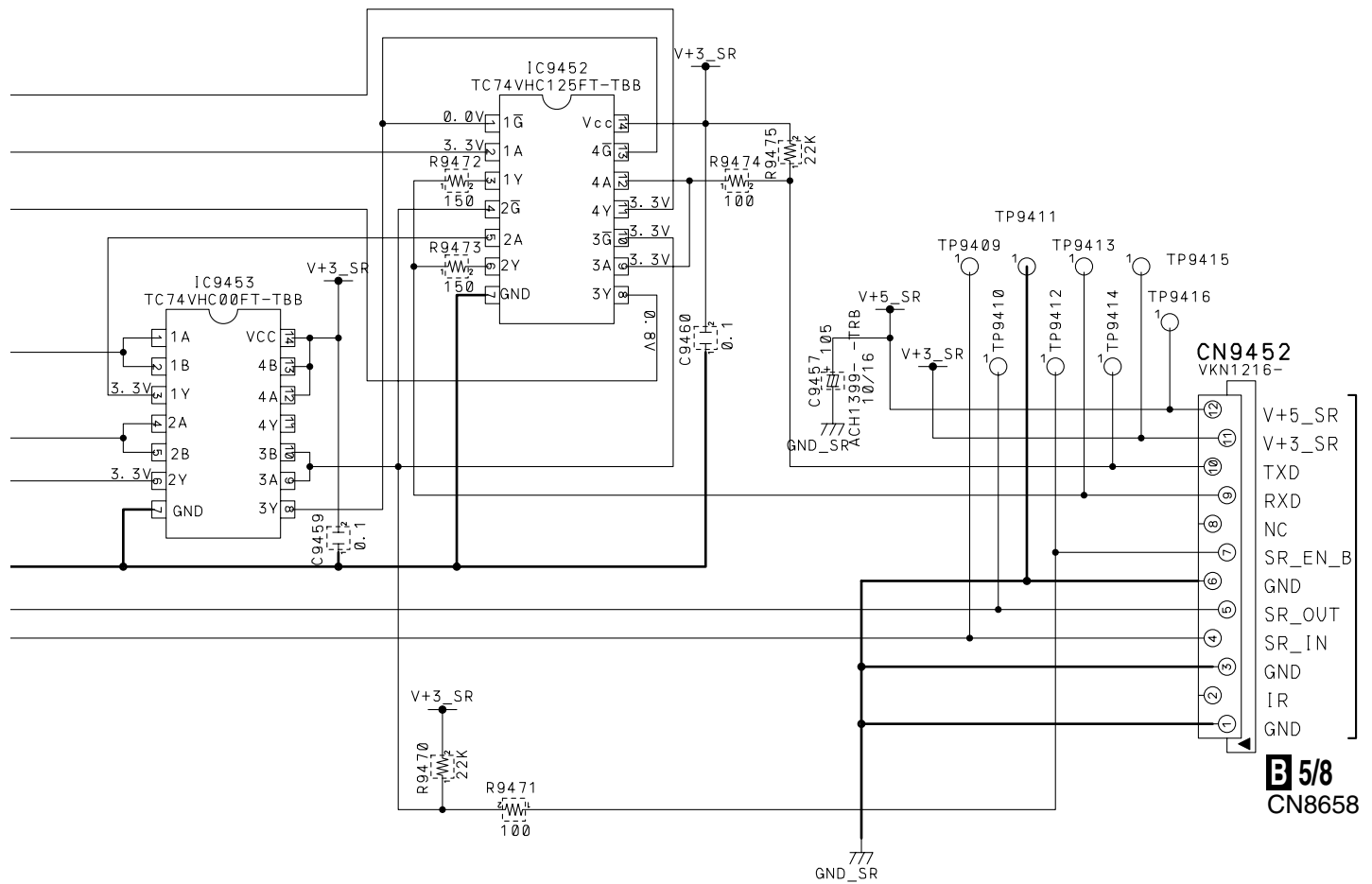


A 12/13 CN7402

3.25 SR ASSY

D SR ASSY (AWZ6817)



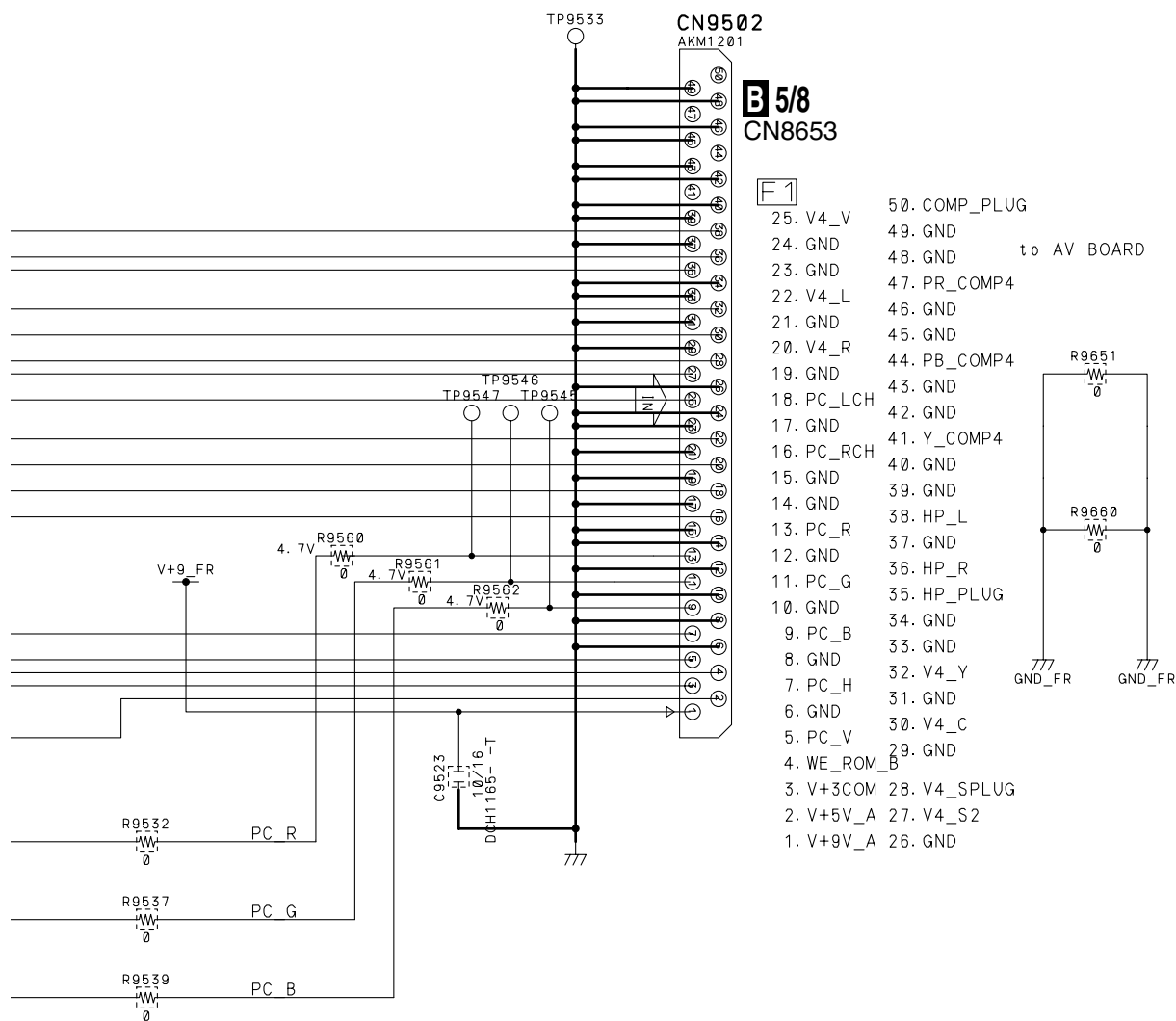


B 5/8
CN8658

E 1/2

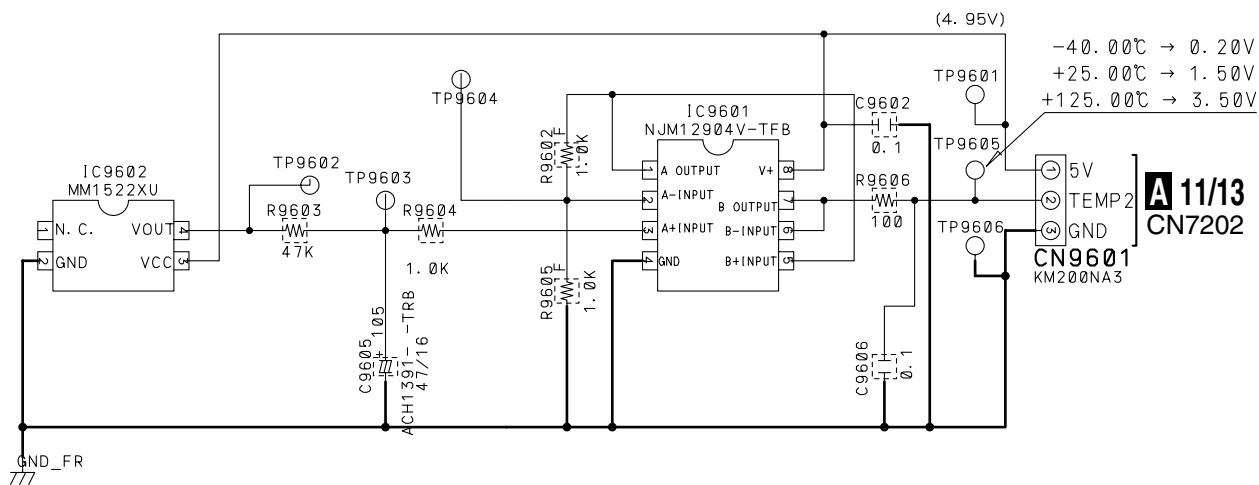


E 1/2 FRONT ASSY (AWZ6832) ● FRONT BLOCK



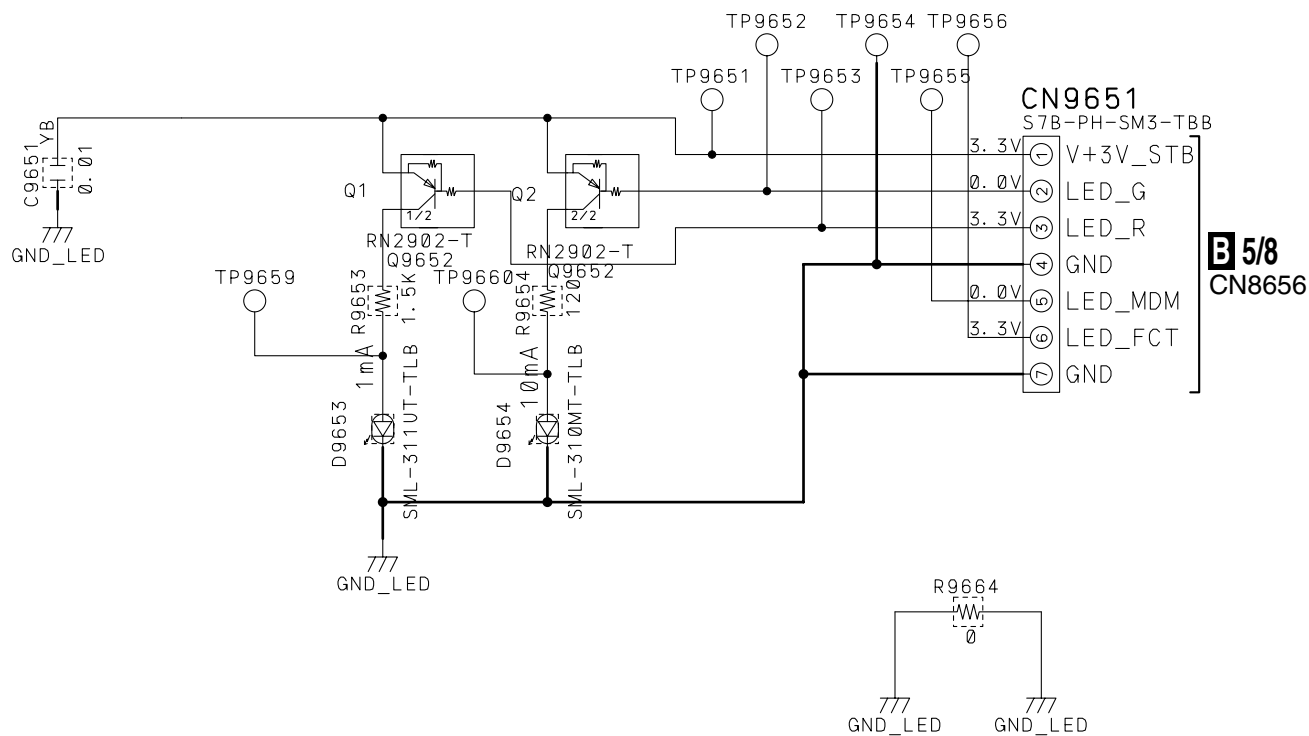
3.27 FRONT ASSY (2/2)

2/2 FRONT ASSY (AWZ6832) ● SENSOR BLOCK

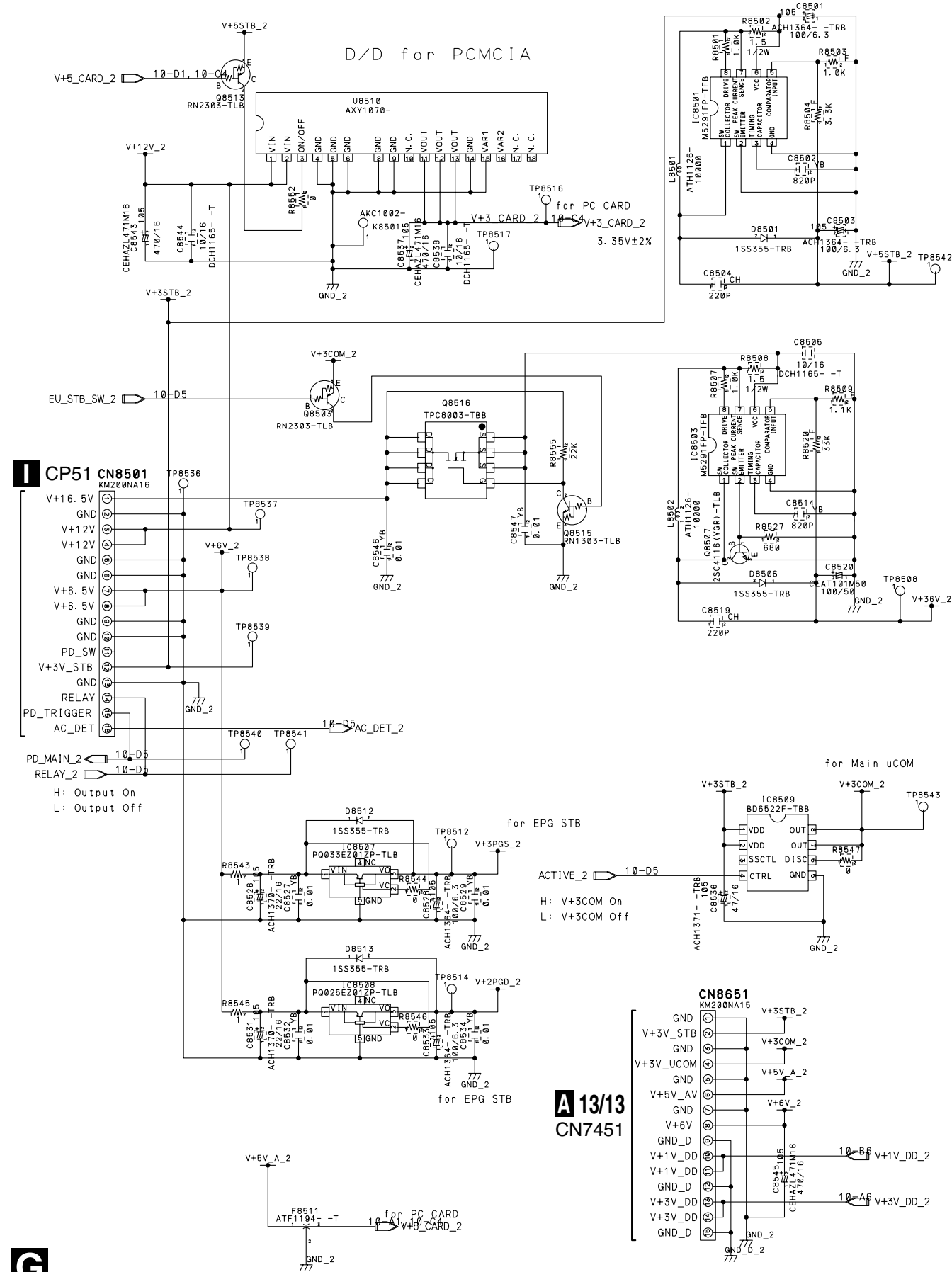


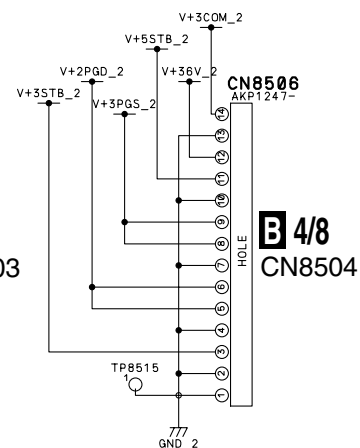
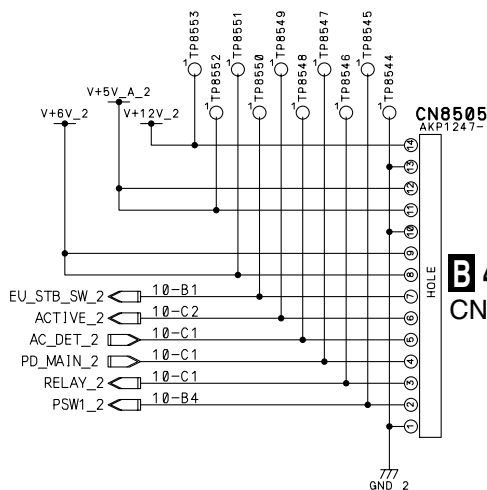
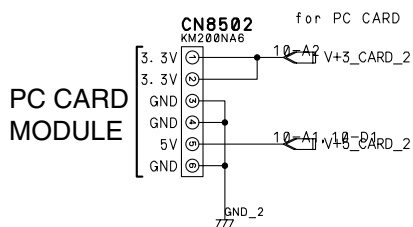
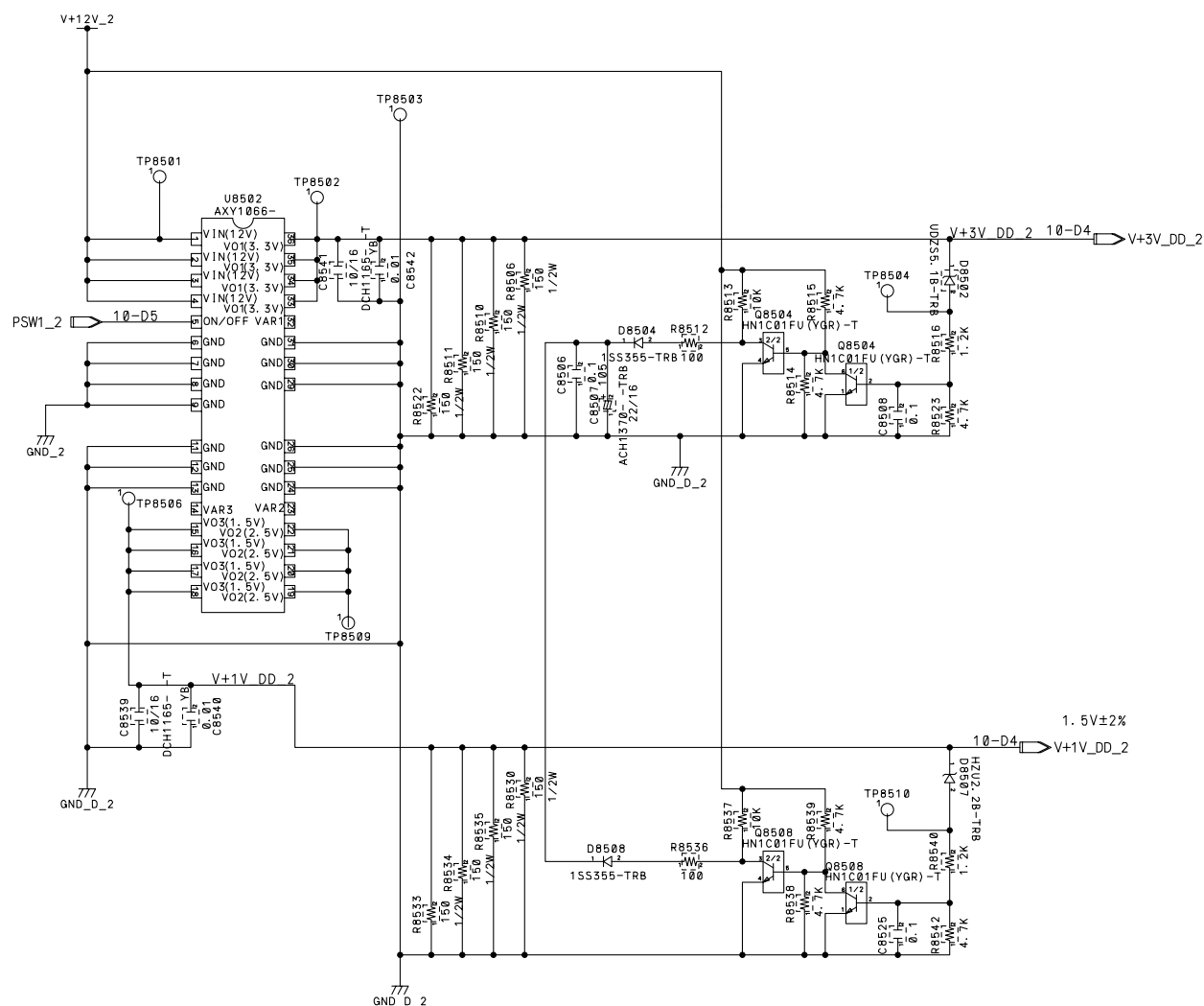
3.28 LED ASSY

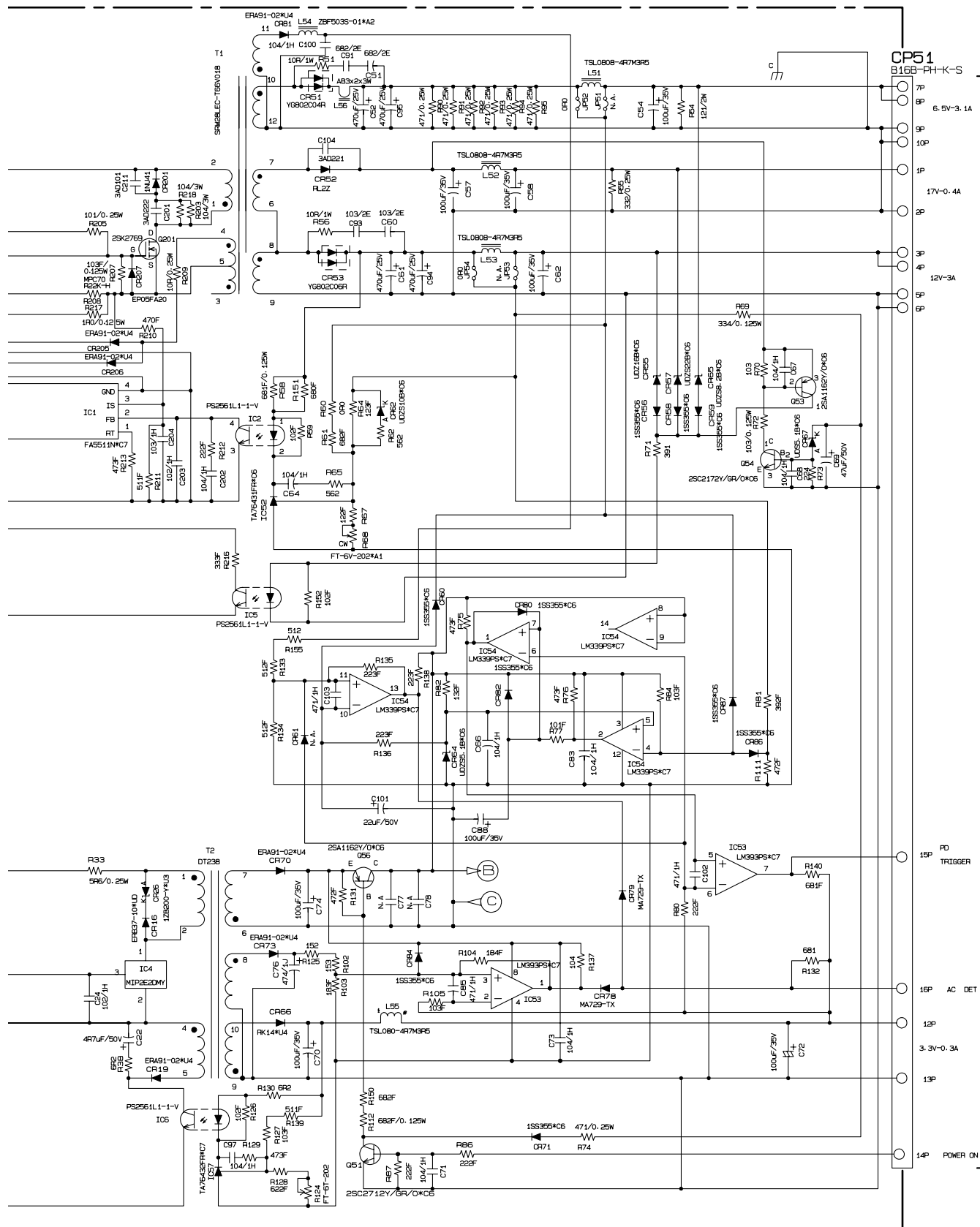
F LED ASSY (AWZ6816)



G REG ASSY (AWZ6814)





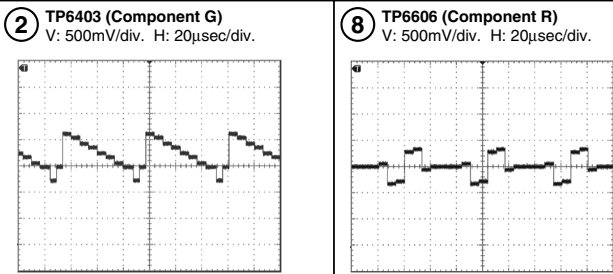
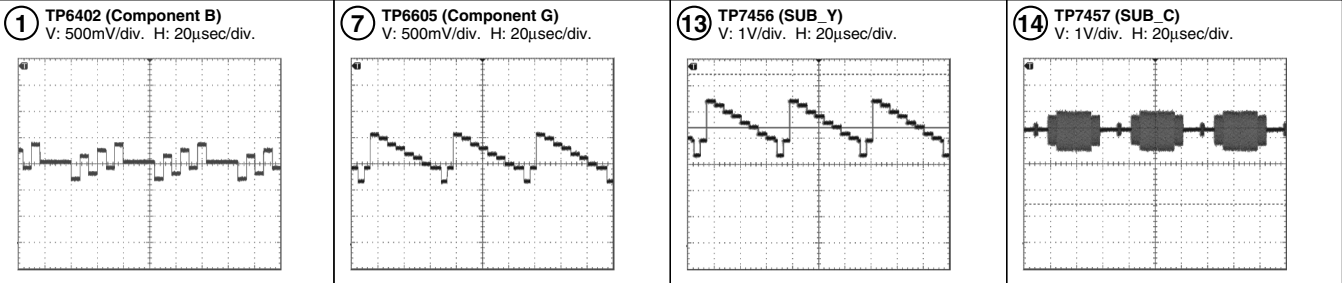


G
CN8501

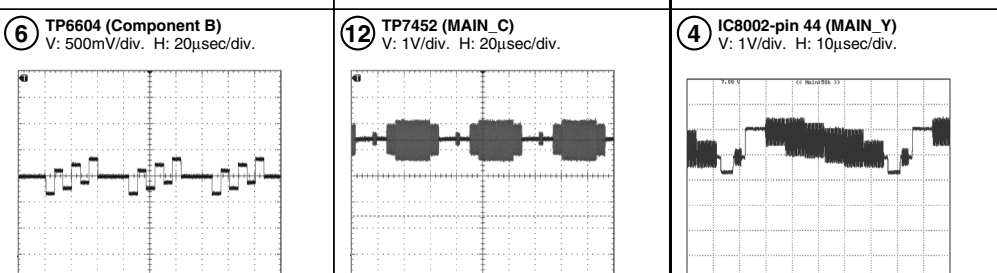
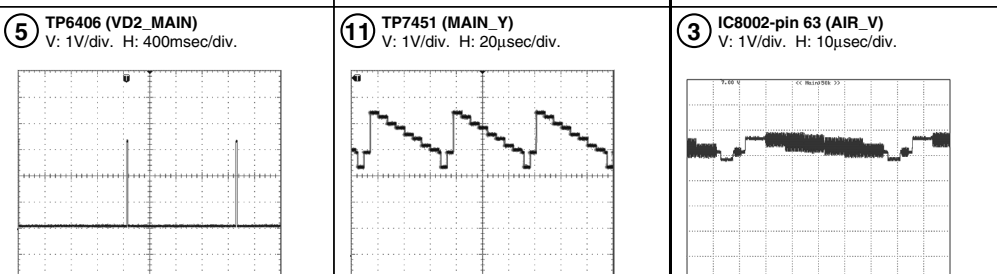
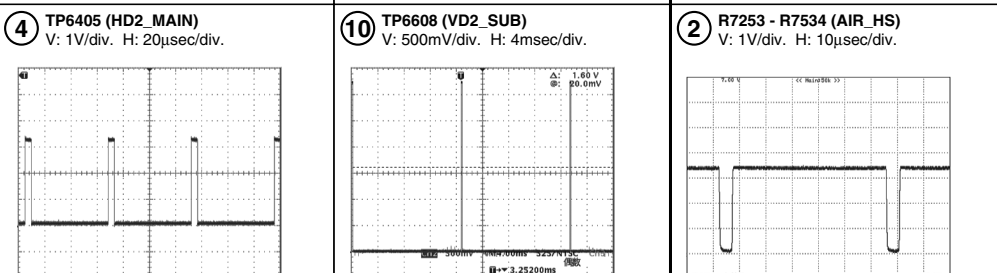
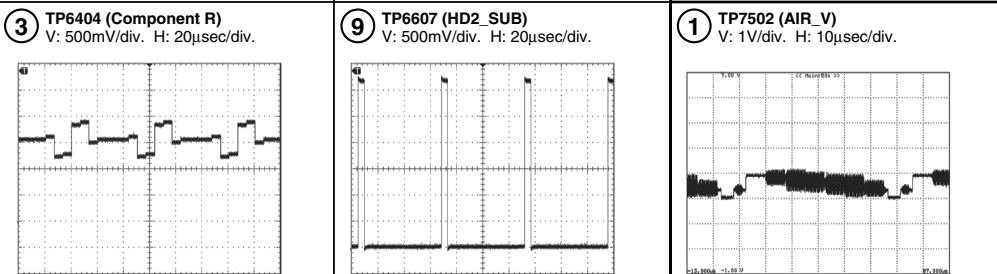
3.31 WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.

A MR MAIN BOARD ASSY



B AV BOARD ASSY



3.32 VOLTAGES

A MR MAIN BOARD ASSY

CN7402 (AKM1234)		Voltage (V)	CN9302 (VKN1220)	
No.	Name		Name	No.
16	GND	0.00	GND	1
15	SP_L	0.00	SP_L	2
14	V+3ACT	3.32	V+3ACT	3
13	SP_R	0.00	SP_R	4
12	V+3COM	3.34	V+3COM	5
11	V+3STB	3.36	V+3STB	6
10	SP_MUTE	3.36	SP_MUTE	7
9	MTXD	3.33	MTXD	8
8	FIELD	0.01	FIELD	9
7	MRXD	3.34	MRXD	10
6	REM	3.34	REM	11
5	CST2	0.00	CST2	12
4	CST1	0.00	CST1	13
3	REQ	0.00	REQ	14
2	KEY	3.36	KEY	15
1	STB_MT	0.39	STB_MT	16

B AV BOARD ASSY

CN8660 (AKM1233)		Voltage (V)	CN501	
No.	Name		Name	No.
1	RXD_CARD	3.32	RXD_CARD	12
2	TXD_CARD	3.33	TXD_CARD	11
3	NC		NC	10
4	CARD_V	3.31	CARD_V	9
5	CARD_H	3.31	CARD_H	8
6	GND	0.00	GND	7
7	GND	0.00	GND	6
8	YUVD1_B	0.51	YUVD1_B	5
9	GND	0.00	GND	4
10	YUVD1_G	0.56	YUVD1_G	3
11	GND	0.00	GND	2
12	YUVD1_R	0.52	YUVD1_R	1

G REG ASSY

CN8502 (KM200NAB)		Voltage (V)	CN1	
No.	Name		Name	No.
1	3.3V	3.35	3.3V	1
2	3.3V	3.35	3.3V	2
3	GND	0.00	GND	3
4	GND	0.00	GND	4
5	5V	5.00	5V	5
6	GND	0.00	GND	6

A MR MAIN BOARD ASSY

CN7203 (AKM1213)		Voltage (V)		
No.	Name		Name	No.
1	TRAP_SW	3.34		
2	NC			
3	V+3V_UCOM	3.34		

C MDR ASSY

B AV BOARD ASSY

CN8653 (AKM1201)		Voltage (V)	CN9502 (AKM1201)	
No.	Name		Name	No.
50	V+9V_A	8.96	V+9V_A	1
49	V+5V_A	5.00	V+5V_A	2
48	V+3COM	3.35	V+3COM	3
47	WE_ROM_B	0.01	WE_ROM_B	4
46	PC_V	0.00	PC_V	5
45	GND	0.00	GND	6
44	PC_H	0.00	PC_H	7
43	GND	0.00	GND	8
42	PC_B	1.76	PC_B	9
41	GND	0.00	GND	10
40	PC_G	1.77	PC_G	11
39	GND	0.00	GND	12
38	PC_R	1.77	PC_R	13
37	GND	0.00	GND	14
36	GND	0.00	GND	15
35	PC_RCH	4.45	PC_RCH	16
34	GND	0.00	GND	17
33	PC_LCH	4.45	PC_LCH	18
32	GND	0.00	GND	19
31	V4_R	4.44	V4_R	20
30	GND	0.00	GND	21
29	V4_L	4.44	V4_L	22
28	GND	0.00	GND	23
27	GND	0.00	GND	24
26	V4_V	4.36	V4_V	25
25	GND	0.00	GND	26
24	V4_S2	0.12	V4_S2	27
23	V4_SPLUG	4.93	V4_SPLUG	28
22	GND	0.00	GND	29
21	V4_C	4.41	V4_C	30
20	GND	0.00	GND	31
19	V4_Y	3.93	V4_Y	32
18	GND	0.00	GND	33
17	GND	0.00	GND	34
16	HP_PLUG	0.03	HP_PLUG	35
15	HP_R	2.07	HP_R	36
14	GND	0.00	GND	37
13	HP_L	2.07	HP_L	38
12	GND	0.00	GND	39
11	GND	0.00	GND	40
10	Y_COMP4		Y_COMP4	41
9	GND	0.00	GND	42
8	GND	0.00	GND	43
7	PB_COMP4		PB_COMP4	44
6	GND	0.00	GND	45
5	GND	0.00	GND	46
4	PR_COMP4		PR_COMP4	47
3	GND	0.00	GND	48
2	GND	0.00	GND	49
1	COMP_PLUG		COMP_PLUG	50

E FRONT ASSY

B AV BOARD ASSY**A** MR MAIN BOARD ASSY

CN8652 (AKM1201)		Voltage (V)	CN7454 (AKM1201)	
No.	Name		Name	No.
1	DSUB_DET	0.00	DSUB_DET	50
2	WE_TXT	0.01	WE_TXT	49
3	PN2	0.00	PN2	48
4	VD_TXT	0.00	VD_TXT	47
5	HD_TXT	0.20	HD_TXT	46
6	PCA_V	0.00	PCA_V	45
7	PCA_H	0.00	PCA_H	44
8	PCA_V_SUB	3.35	PCA_V_SUB	43
9	PCA_H_SUB	3.35	PCA_H_SUB	42
10	RXD_DT	3.32	RXD_DT	41
11	TXD_DT	3.33	TXD_DT	40
12	CLAMP_SUB	0.20	CLAMP_SUB	39
13	SUBC_PR	4.44	SUBC_PR	38
14	GND	0.00	GND	37
15	SUBC_Y	4.44	SUBC_Y	36
16	GND	0.00	GND	35
17	SUBC_PB	4.41	SUBC_PB	34
18	GND	0.00	GND	33
19	R_TXT_SUB	4.78	R_TXT_SUB	32
20	G_TXT_SUB	4.78	G_TXT_SUB	31
21	B_TXT_SUB	4.78	B_TXT_SUB	30
22	GND	0.00	GND	29
23	MAINC_PR	4.44	MAINC_PR	28
24	GND	0.00	GND	27
25	MAINC_Y	4.42	MAINC_Y	26
26	GND	0.00	GND	25
27	MAINC_PB	4.43	MAINC_PB	24
28	GND	0.00	GND	23
29	R_TXT_MAIN	4.78	R_TXT_MAIN	22
30	G_TXT_MAIN	4.78	G_TXT_MAIN	21
31	B_TXT_MAIN	4.78	B_TXT_MAIN	20
32	GND	0.00	GND	19
33	B_DA_SUB	0.68	B_DA_SUB	18
34	G_DA_SUB	0.68	G_DA_SUB	17
35	R_DA_SUB	0.68	R_DA_SUB	16
36	GND	0.00	GND	15
37	SUB_C	4.32	SUB_C	14
38	GND	0.00	GND	13
39	SUB_Y	3.20	SUB_Y	12
40	GND	0.00	GND	11
41	B_DA_MAIN	1.08	B_DA_MAIN	10
42	GND	0.00	GND	9
43	G_DA_MAIN	1.08	G_DA_MAIN	8
44	GND	0.00	GND	7
45	R_DA_MAIN	1.08	R_DA_MAIN	6
46	GND	0.00	GND	5
47	MAIN_C	4.41	MAIN_C	4
48	GND	0.00	GND	3
49	MAIN_Y	4.39	MAIN_Y	2
50	GND	0.00	GND	1

B AV BOARD ASSY**A** MR MAIN BOARD ASSY

CN8654 (AKM1201)		Voltage (V)	CN7455 (AKM1201)	
No.	Name		Name	No.
1	SP_R	0.00	SP_R	50
2	GND	0.00	GND	49
3	SP_L	0.00	SP_L	48
4	GND	0.00	GND	47
5	HDMI_RCH	2.50	HDMI_RCH	46
6	GND	0.00	GND	45
7	HDMI_LCH	2.22	HDMI_LCH	44
8	GND	0.00	GND	43
9	PIXEL_CLK_IN	1.60	PIXEL_CLK_IN	42
10	B4	0.00	B4	41
11	B3	0.00	B3	40
12	B2	0.00	B2	39
13	B1	0.00	B1	38
14	B0	0.00	B0	37
15	G5	0.00	G5	36
16	G4	0.05	G4	35
17	G3	0.05	G3	34
18	G2	0.00	G2	33
19	G1	0.00	G1	32
20	G0	0.00	G0	31
21	R4	0.00	R4	30
22	R3	0.00	R3	29
23	R2	0.00	R2	28
24	R1	0.00	R1	27
25	R0	0.00	R0	26
26	AIR_AFT	3.08	AIR_AFT	25
27	AIR_HS	3.21	AIR_HS	24
28	RST_IF	3.37	RST_IF	23
29	TXD_WR	3.33	TXD_WR	22
30	RXD_WR	3.33	RXD_WR	21
31	SDA_AV	4.99	SDA_AV	20
32	SCL_AV	5.00	SCL_AV	19
33	RXD_IF	3.36	RXD_IF	18
34	TXD_IF	3.33	TXD_IF	17
35	CLK_IF	3.33	CLK_IF	16
36	REQ_IF	0.01	REQ_IF	15
37	BUSY_IF	0.01	BUSY_IF	14
38	CE_IF	3.33	CE_IF	13
39	RESET_TXT	3.29	RESET_TXT	12
40	RELAY	3.17	RELAY	11
41	SR_OUT	3.34	SR_OUT	10
42	PSW1	0.02	PSW1	9
43	PD_MAIN	0.12	PD_MAIN	8
44	CLAMP_MAIN	3.35	CLAMP_MAIN	7
45	WE_ROM_B	0.01	WE_ROM_B	6
46	MON_MUTE	0.01	MON_MUTE	5
47	HP_VOL	0.13	HP_VOL	4
48	KEYSCAN	3.36	KEYSCAN	3
49	STB_MT	0.04	STB_MT	2
50	CST1	0.00	CST1	1

G REG ASSY

CN8651 (KM200NA15)		Voltage (V)	CN7451 (AKM1269)	
No.	Name		Name	No.
15	GND_D	0.00	GND_D	1
14	V+3V_DD	3.38	V+3V_DD	2
13	V+3V_DD	3.28	V+3V_DD	3
12	GND_D	0.00	GND_D	4
11	V+1V_DD	1.48	V+1V_DD	5
10	V+1V_DD	1.48	V+1V_DD	6
9	GND_D	0.00	GND_D	7
8	V+6V	6.75	V+6V	8
7	GND	0.00	GND	9
6	V+5V_AV	5.00	V+5V_AV	10
5	GND	0.00	GND	11
4	V+3V_UCOM	3.34	V+3V_UCOM	12
3	GND	0.00	GND	13
2	V+3V_STB	3.36	V+3V_STB	14
1	GND	0.00	GND	15

A MR MAIN BOARD ASSY**B** AV BOARD ASSY

CN8658 (AKM1233)		Voltage (V)	CN9452 (VKN1216)	
No.	Name		Name	No.
1	V+5V_SR	5.06	V+5V_SR	12
2	V+3V_SR	3.40	V+3V_SR	11
3	TXD	3.36	TXD	10
4	RXD	3.36	RXD	9
5	NC	3.37	NC	8
6	SR_EN_B	3.36	SR_EN_B	7
7	GND	0.00	GND	6
8	SR_OUT	3.34	SR_OUT	5
9	SR_IN	3.37	SR_IN	4
10	GND	0.00	GND	3
11	NC		NC	2
12	GND	0.00	GND	1

D SR ASSY**B** AV BOARD ASSY

CN8656 (KM200NA7)		Voltage (V)	CN9651 (S7B-PH-SM3)	
No.	Name		Name	No.
1	V+3V_LED	3.37	V+3V_LED	1
2	LED_G	0.04	LED_G	2
3	LED_R	3.37	LED_R	3
4	GND	0.00	GND	4
5	LED_MDM	0.85	LED_MDM	5
6	LED_FCT	3.37	LED_FCT	6
7	GND	0.00	GND	7

F LED ASSY**A** MR MAIN BOARD ASSY

CN7202 (AKM1242)		Voltage (V)	CN9601 (KM200NA3)	
No.	Name		Name	No.
1	5V	5.00	5V	1
2	TEMP1	1.74	TEMP1	2
3	STBGND	0.00	STBGND	3

E FRONT ASSY**G** REG ASSY

CN8501 (KM200NA16)		Voltage (V)	CP51 (KM200NA16)	
No.	Name		Name	No.
1	V+16.5V	19.33	V+16.5V	1
2	GND	-0.01	GND	2
3	V+12V	12.23	V+12V	3
4	V+12V	12.23	V+12V	4
5	GND	-0.01	GND	5
6	GND	-0.01	GND	6
7	V+6.5V	6.80	V+6.5V	7
8	V+6.5V	6.80	V+6.5V	8
9	GND	-0.01	GND	9
10	GND	-0.01	GND	10
11	NC	1.18	NC	11
12	V+3V_STB	3.37	V+3V_STB	12
13	GND	-0.01	GND	13
14	RELAY	3.17	RELAY	14
15	PD_TRIGGER	0.12	PD_TRIGGER	15
16	AC_DET	3.35	AC_DET	16

I POWER SUPPLY UNIT

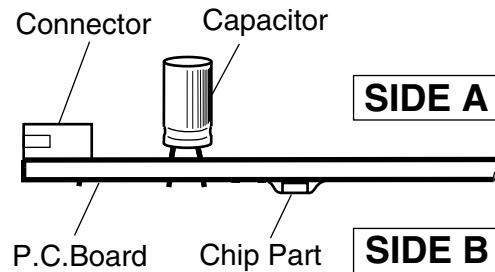
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

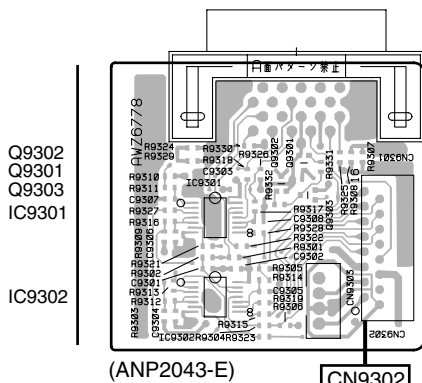
3. The parts mounted on this PCB include all necessary parts for several destinations.
- For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



4.1 AC SW and MDR ASSYS

SIDE A

C MDR ASSY



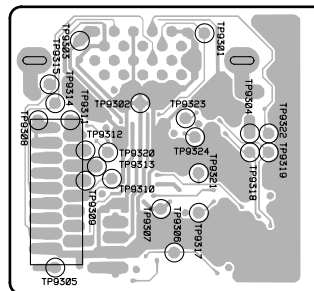
(ANP2043-E)

CN9302

A CN7402

SIDE B

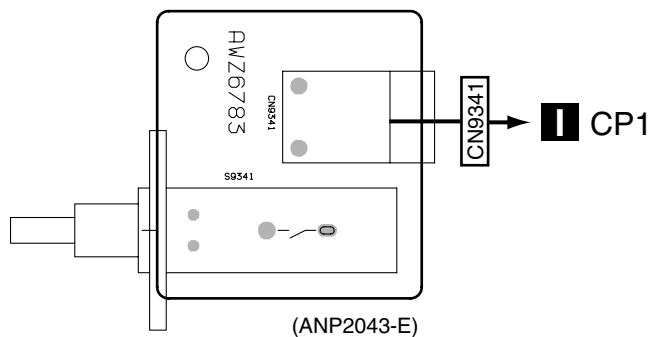
C MDR ASSY



CN9302

(ANP2043-E)

H AC SW ASSY

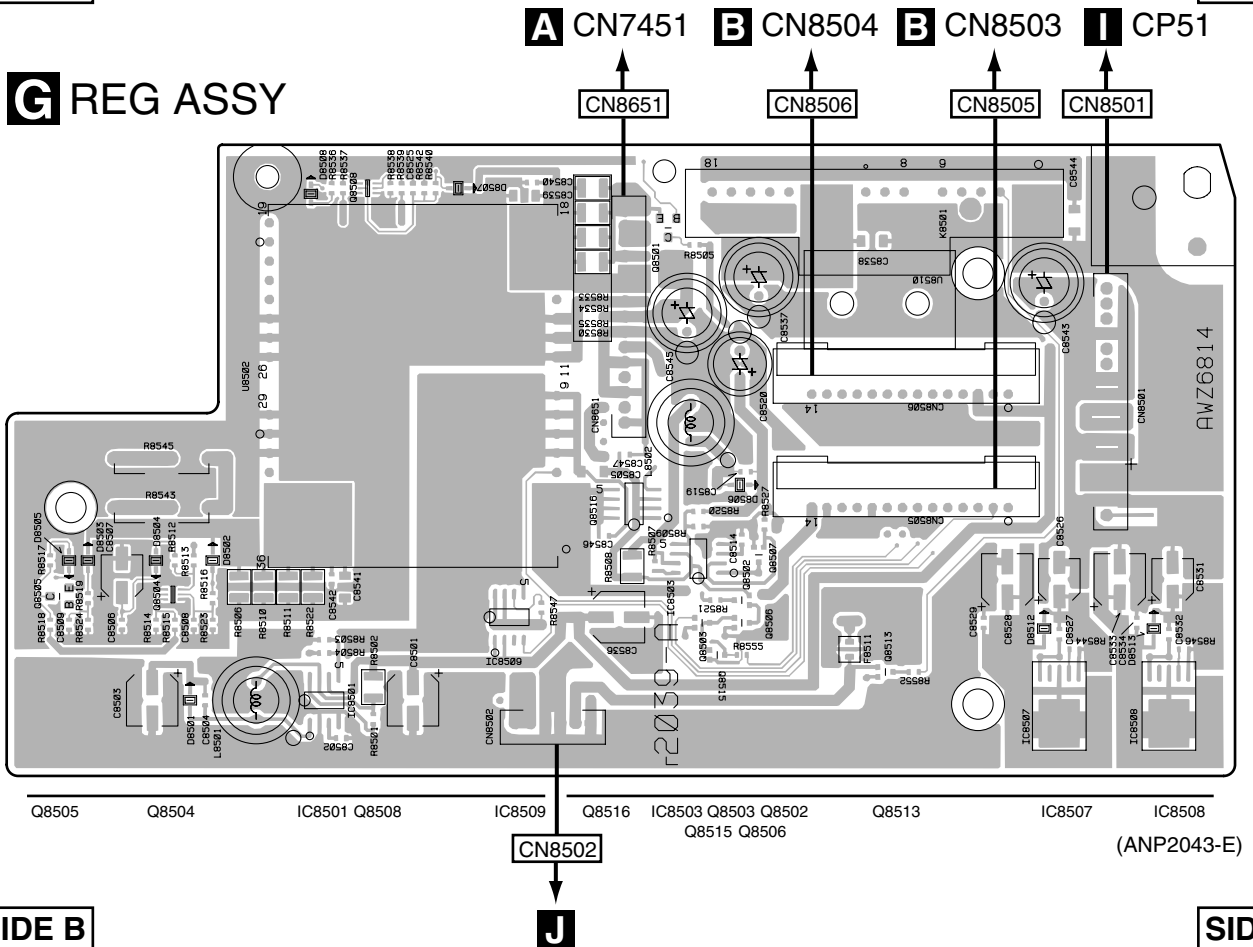


4.2 REG ASSY

SIDE A

SIDE A

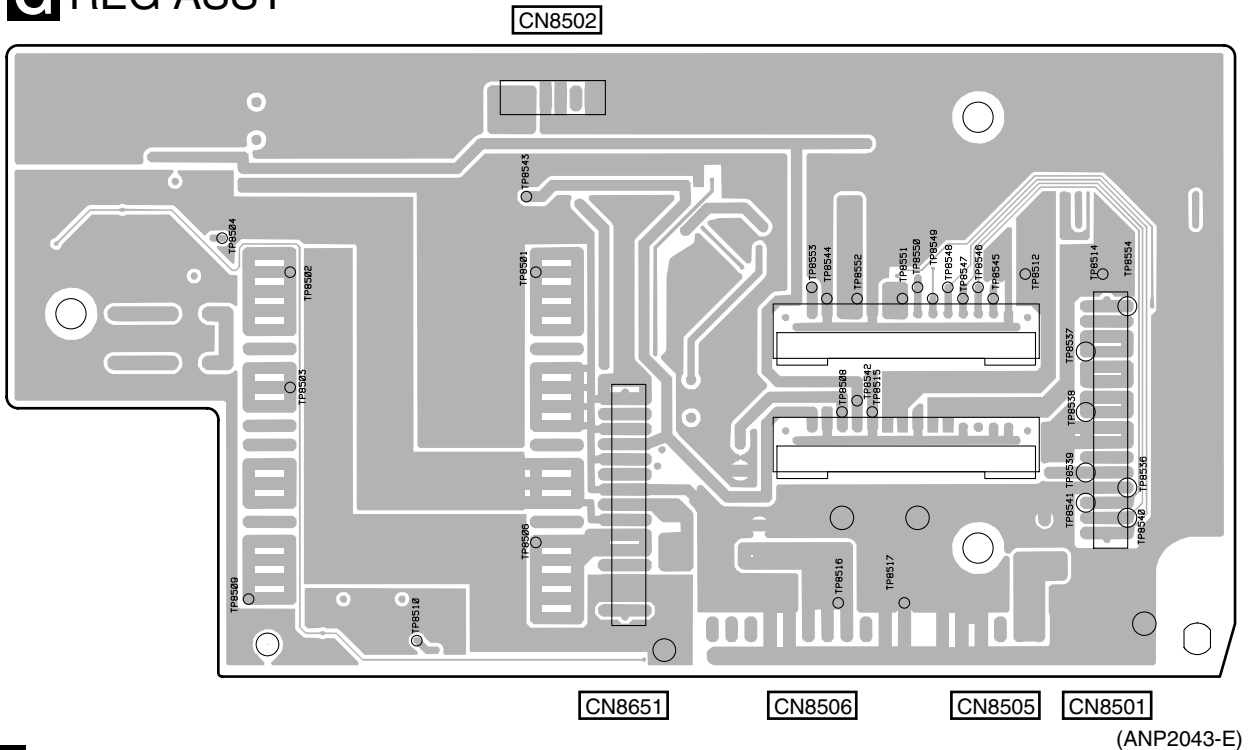
G REG ASSY



SIDE B

SIDE B

G REG ASSY



G

G

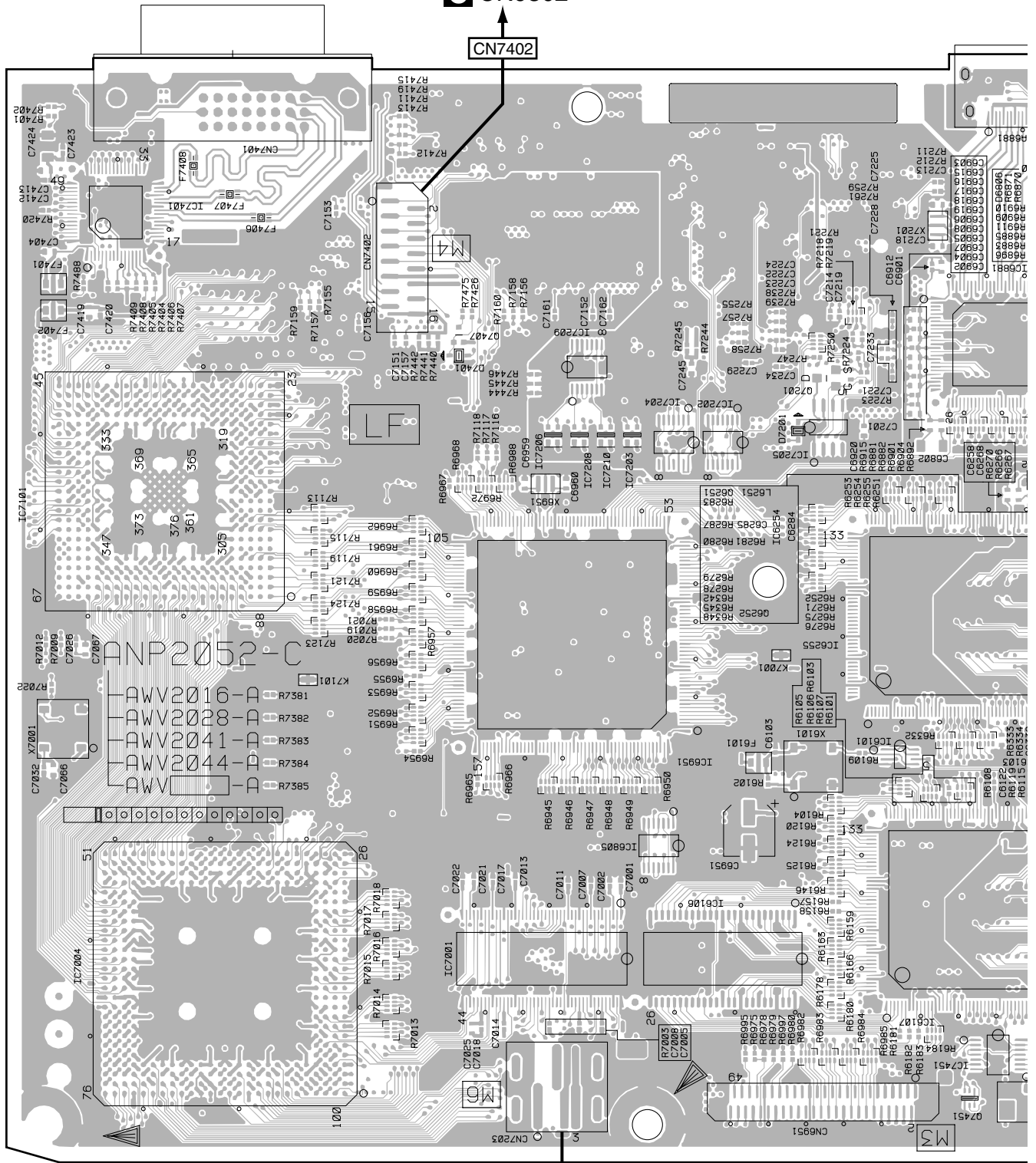
4.3 MR MAIN BOARD ASSY

SIDE A

MR MAIN BOARD ASSY

CN9302

CN7402



IC7401
IC7101

Q7407
IC7206
IC7208
IC6951

IC7209
IC7210
IC7203
IC7204
IC7202
IC7205
Q7201

IC6881
IC688
IC6252
Q6251
IC625
IC6101
IC6103
IC6
IC6107
Q610
Q7451
IC7451

IC7004

IC7001

IC6805

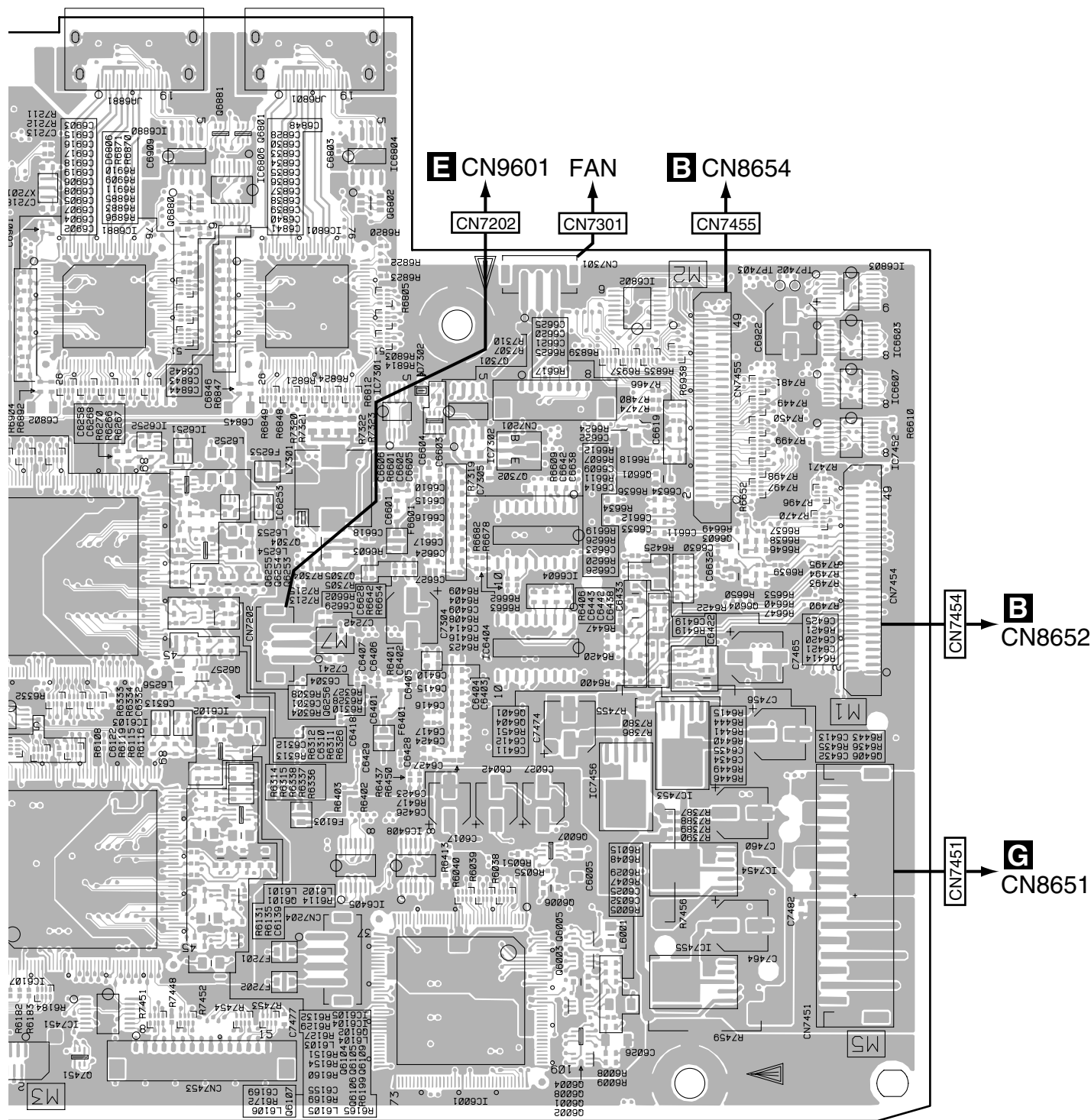
IC6101

TRAP SW

PDP-R04E

SIDE A

A



(ANP2052-C)

IC6881 IC6880 Q6881 Q6880 IC6806 Q6801 IC6801 Q6802 IC6804 Q7301 IC6802 IC6603 IC6803 IC6607
 252 Q6251 IC6251 Q6255 Q6252 IC6254 IC6253 IC7301 Q7301 IC7302 Q7302 Q6601 Q6603 IC7452
 6101 IC6103 IC6102 Q6257 Q6256 Q6254 Q6253 Q6201 Q7305 IC6404 IC6604 Q6401 Q6404 Q6406 Q6604
 IC6107 Q6104 Q6101 Q6102 Q6105 Q6109 IC6405 IC6408 Q6006 Q6007 IC7456 IC7454 IC7453
 Q7451 IC7451 Q6107 Q6106 IC6001 Q6003 Q6008 Q6005 Q6004 Q6001 Q6002 IC7455

B

C

D

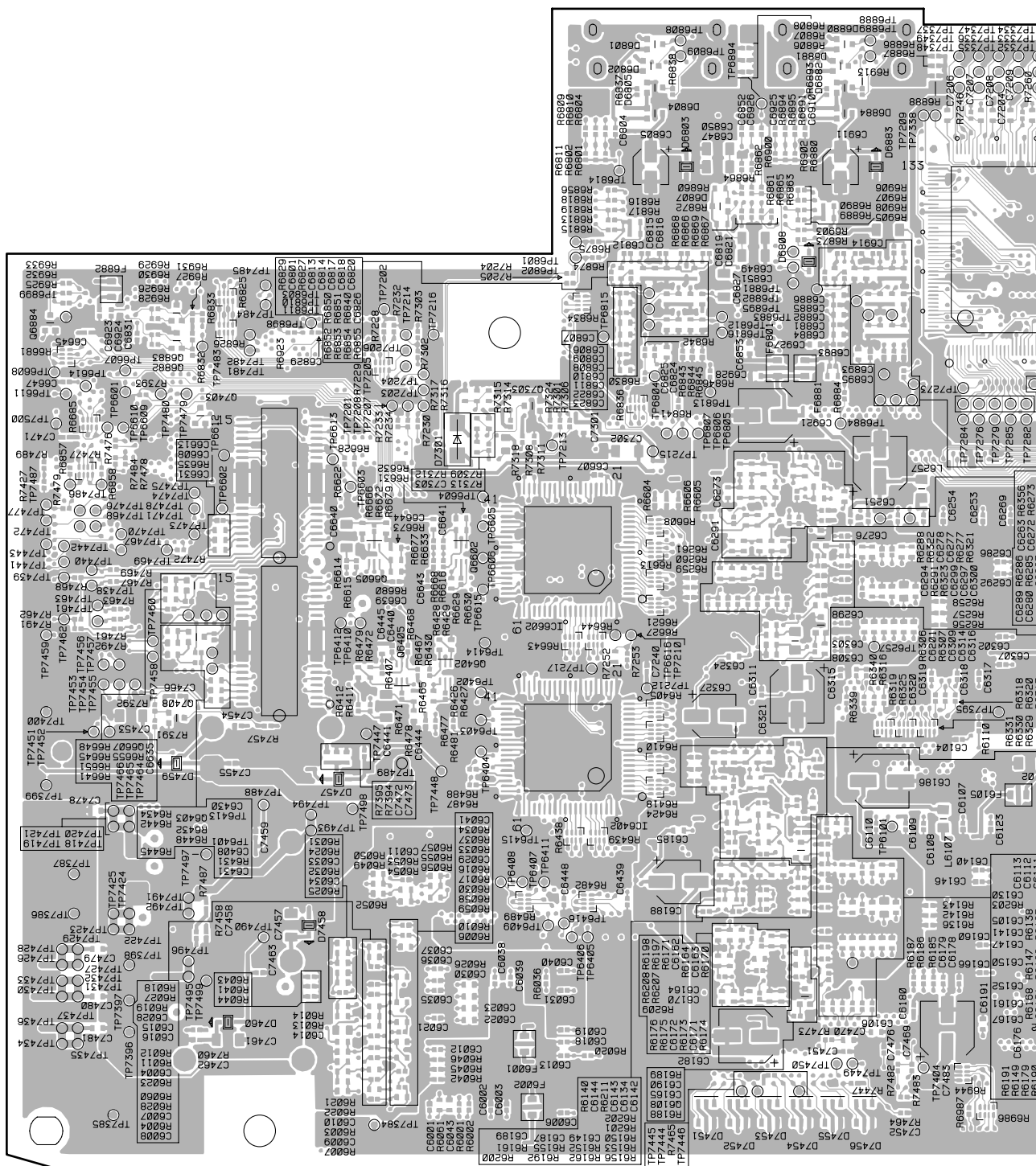
E

F

A

SIDE B

MR MAIN BOARD ASSY



Q6884

Q6883 Q6882

Q7408 Q7403 Q6607

Q6605 Q6405 Q6402 Q6602 IC6602 IC6402

Q6258 Q6259

Q6110 Q6108

IC7207

A

4.4 AV BOARD and SR ASSYS

SIDE A

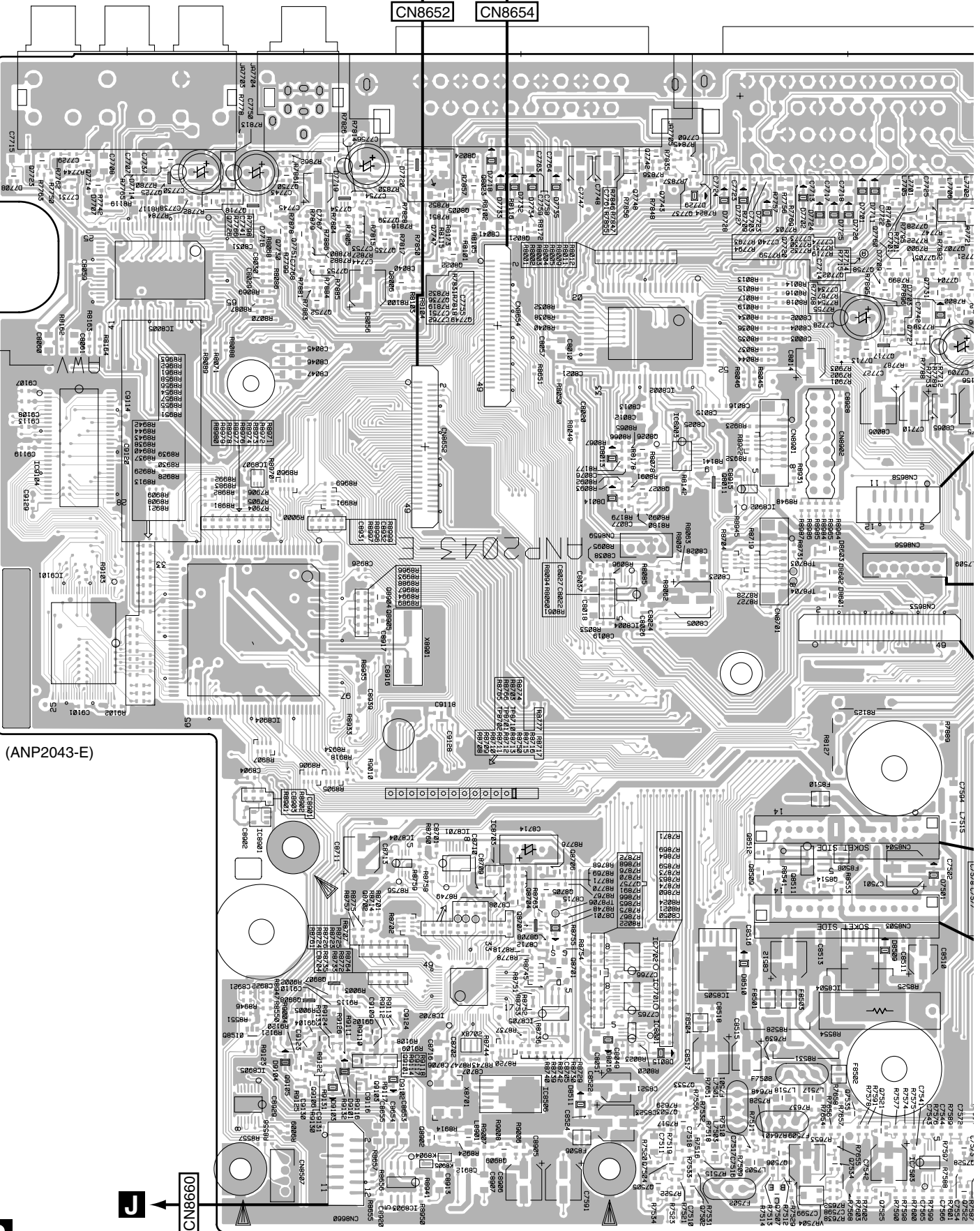
AV BOARD ASSY

CN7454

CN7455

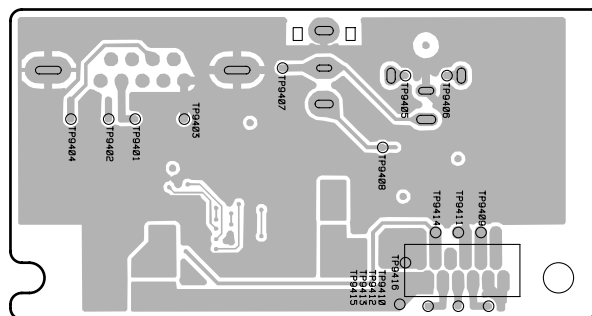
CN8652

CN8654



SIDE B

D SR ASSY



(ANP2043-E)

CN9452

Q7746

Q7744 Q7716
Q7738 Q7713Q7536 Q7756
Q7719 Q7711
Q7724 Q7733
Q7703 Q7715
Q7710

Q8007

Q8008

Q8025

Q800

Q7514

IC8906

IC9108
IC9106

Q7501

IC9105
IC9107Q7508
Q7515

Q7531

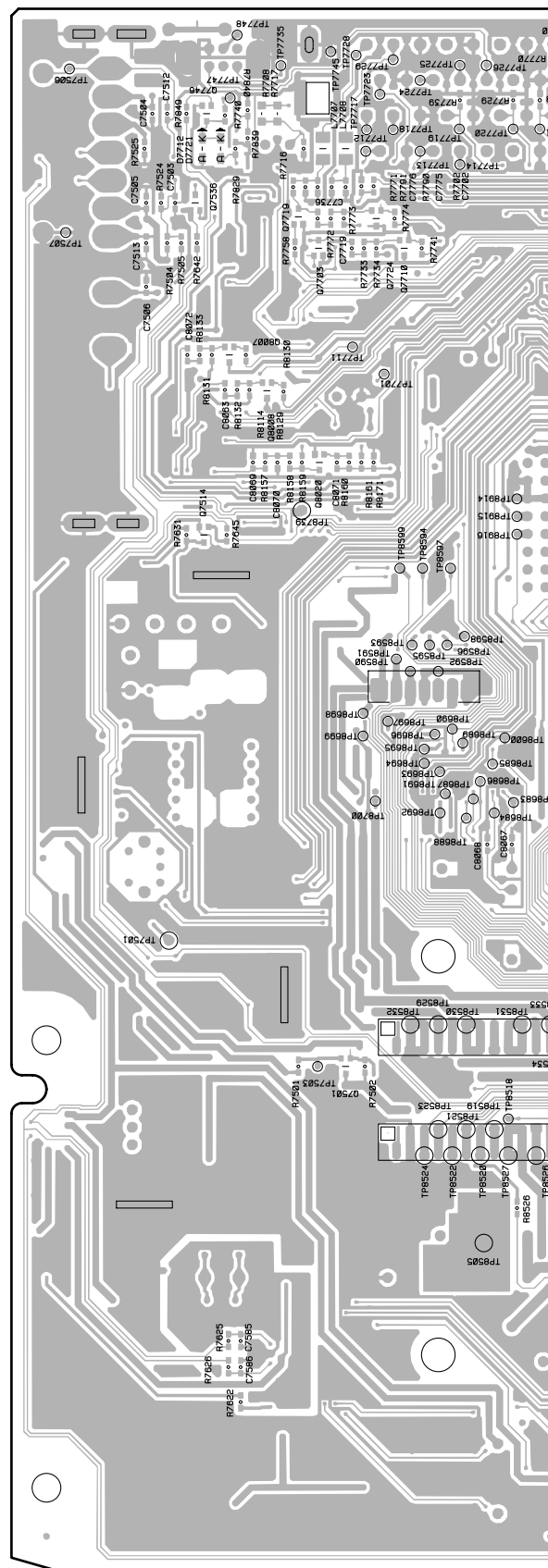
Q7532

Q8903
Q8901

CN8656

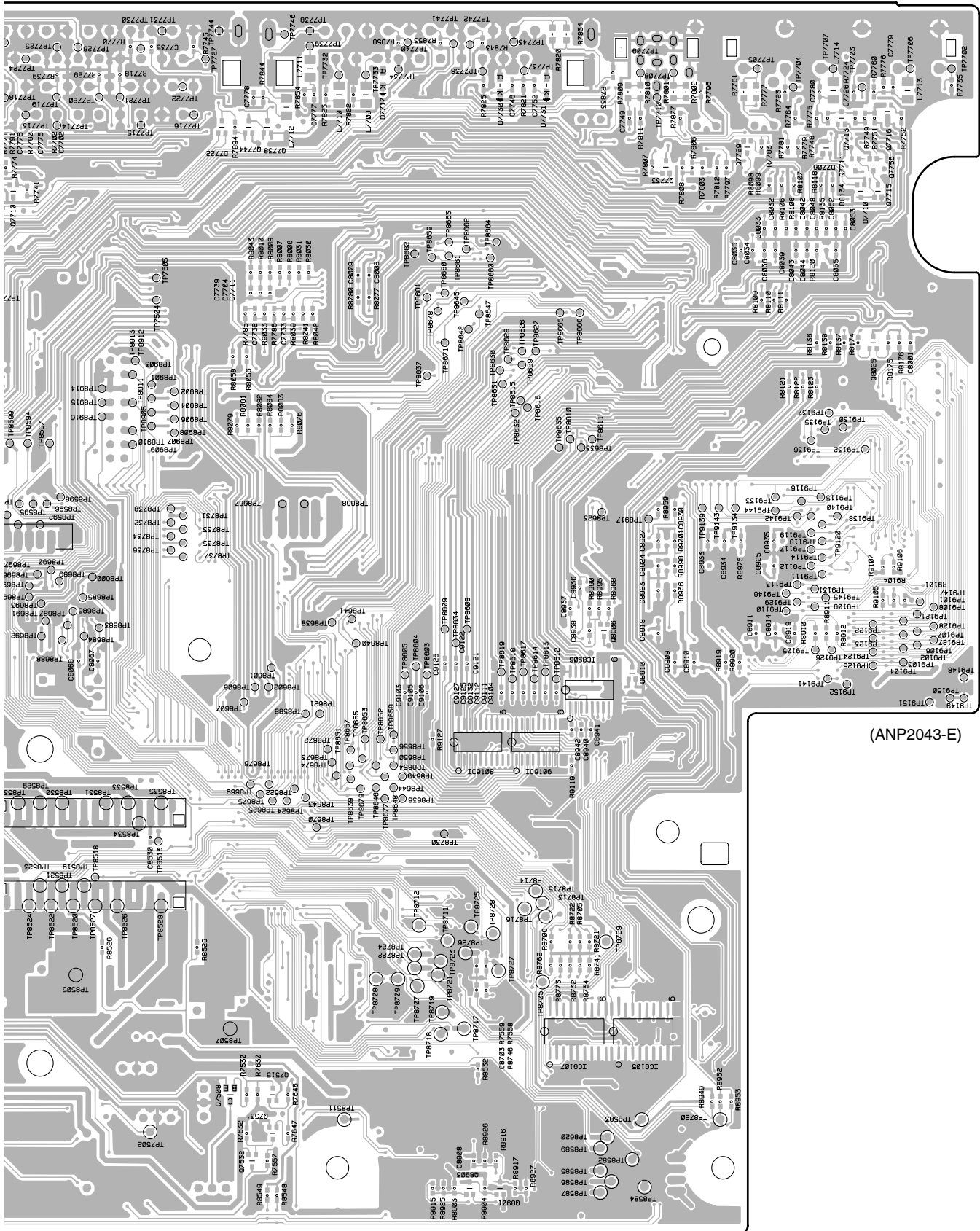
CN8504

CN8503



B D

BAV BOARD ASSY



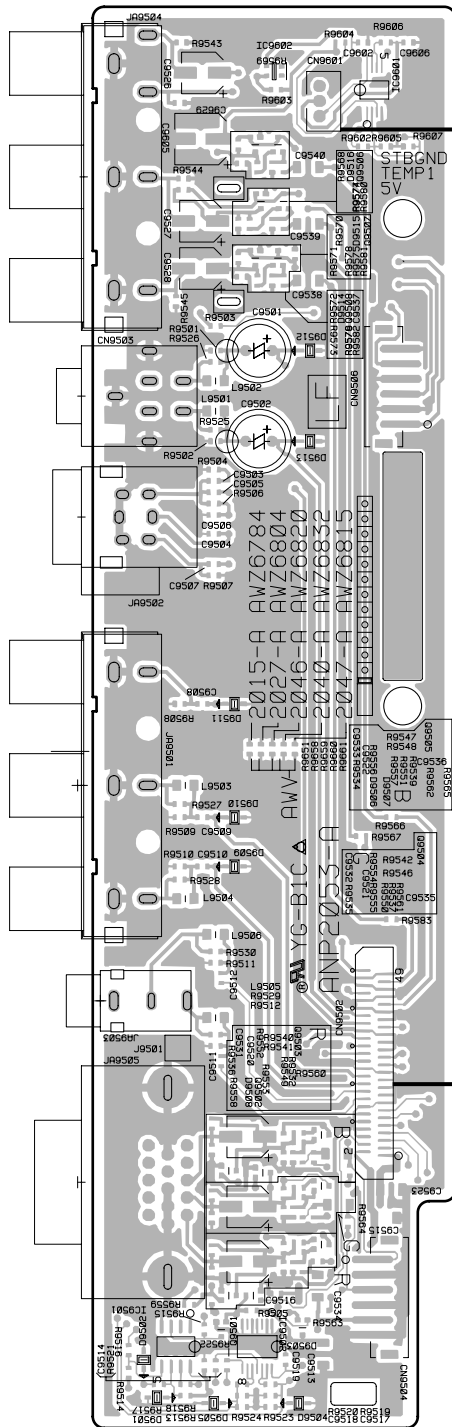
4.5 FRONT and LED ASSY

SIDE A

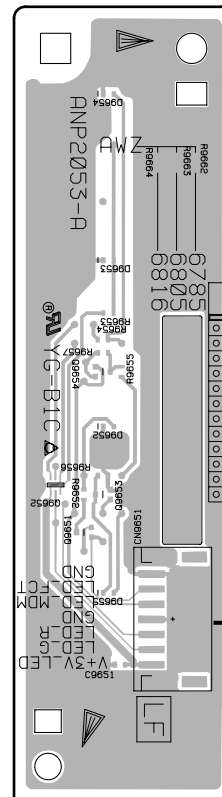
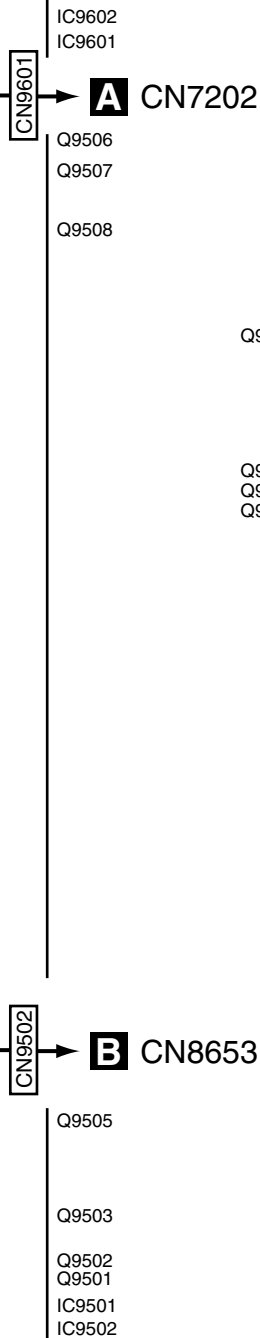
SIDE A

E FRONT ASSY

F LED ASSY



(ANP2053-A)



(ANP2053-A)

B CN8656

B CN8653

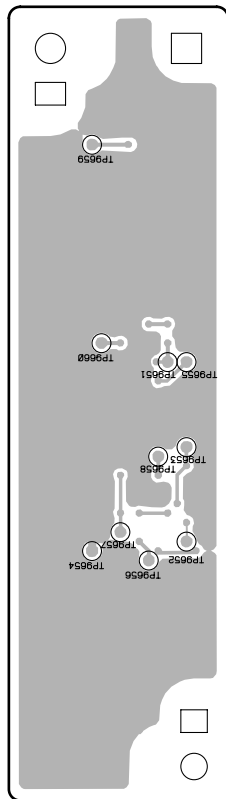
E F

E F

SIDE B

SIDE B

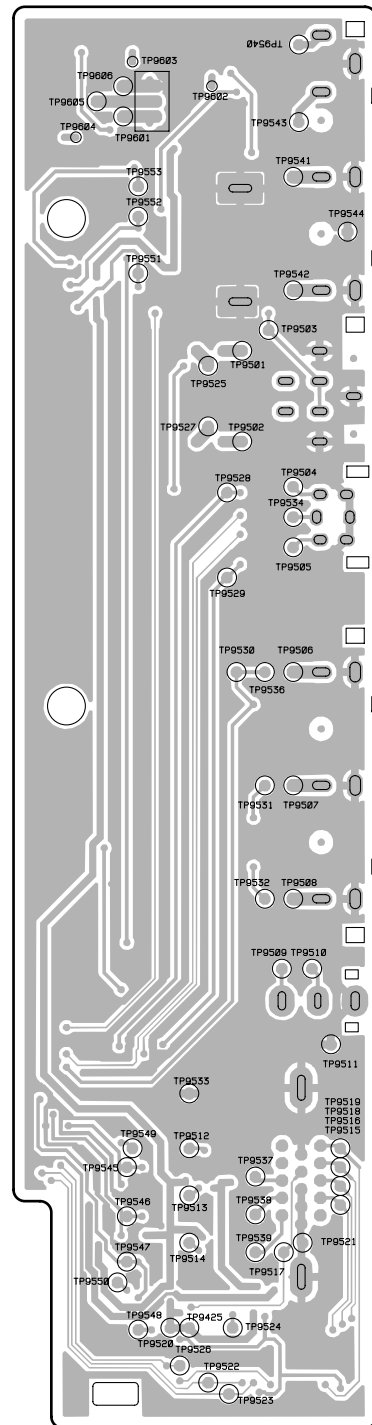
F LED ASSY



(ANP2053-A)

E FRONT ASSY

CN9601



(ANP2053-A)

E F

E F

5. PCB PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

$$560 \, \Omega \rightarrow 56 \times 10^1 \rightarrow 561 \dots\dots\dots RD1/4PU \boxed{5} \boxed{6} \boxed{1} J$$
$$47k\,\Omega \quad \rightarrow \quad 47 \times 10^3 \quad \rightarrow \quad 473 \quad \cdots \cdots \cdots RD1/4PU \boxed{4} \boxed{7} \boxed{3} J$$
$$0.5\,\Omega \quad \rightarrow \quad R50 \quad \cdots \cdots \cdots \quad RN2H\boxed{R}\boxed{5}\boxed{0}K$$
$$I\Omega \rightarrow I\mathbb{R}0 \dashrightarrow \cdots \dashrightarrow RSIP\boxed{I}\boxed{R}\boxed{0}K$$

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

$$5.62k\,\Omega \rightarrow 562 \times 10^1 \rightarrow 5621 \rightarrow \dots \rightarrow RN1/4PC\boxed{5}\boxed{6}\boxed{2}\boxed{1}F$$

Mark No.	Description
----------	-------------

LIST OF ASSEMBLIES

NSP	1..MR AV BOARD ASSY	AWV2039
	2..AV BOARD ASSY	AWZ6813
	2..REG ASSY	AWZ6814
	2..MDR ASSY	AWZ6778
	2..SR ASSY	AWZ6817
	2..AC SW ASSY	AWZ6783

NSP	1..MR FUKUGOU BOARD ASSY	AWV2040
	2..FRONT ASSY	AWZ6832
	2..LED ASSY	AWZ6816

1..MR MAIN BOARD ASSY AWV20411..PC CARD MODULE AXY1073

1..POWER SUPPLY UNIT AXY1065

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
C6177,C6185,C6265,C6282		CKSRYB104K16
C6299,C6300,C6309,C6316,C6324		CKSRYB104K16
C6101,C6155,C6169,C6175,C6190		CKSRYB105K10
C6201,C6295,C6301,C6310,C6314		CKSRYB105K10
C6103,C6104,C6107-C6111,C6113		CKSSYF104Z16
C6116,C6123-C6125,C6130-C6133		CKSSYF104Z16
C6140,C6141,C6146-C6148,C6150		CKSSYF104Z16
C6152,C6160-C6162,C6165-C6167		CKSSYF104Z16
C6170,C6176,C6178-C6181		CKSSYF104Z16
C6253-C6257,C6259,C6262		CKSSYF104Z16
C6269-C6271,C6276-C6279		CKSSYF104Z16
C6286,C6287,C6292-C6294,C6296		CKSSYF104Z16
C6298,C6302-C6304,C6307,C6308		CKSSYF104Z16
C6311,C6315,C6317-C6320,C6331		CKSSYF104Z16
C6102 (10uF/16V)		DCH11665

RESISTORS

R6101,R6104-R6106,R6120	RAB4CQ100J
R6124,R6125,R6251-R6254,R6271	RAB4CQ100J
R6275,R6276	RAB4CQ100J
R6329-R6331	RAB4CQ103J
R6194-R6196,R6321-R6323	RS1/16S1000F

R6147,R6291	RS1/16S1301F
R6126,R6138,R6277,R6288	RS1/16S2701F
R6167,R6168,R6306,R6307	RS1/16S8201F
R6102,R6103,R6107,R6111,R6114	RS1/16SS####J
R6121,R6127,R6130,R6136,R6137	RS1/16SS####J

R6139,R6142-R6145,R6164,R6173	RS1/16SS###J
R6179,R6188,R6190,R6191,R6193	RS1/16SS###J
R6199,R6209,R6255-R6262,R6265	RS1/16SS###J
R6272,R6278,R6279,R6282,R6304	RS1/16SS###J
R6312,R6316,R6319,R6324,R6325	RS1/16SS###J

R6328,R6338,R6339	RS1/16SS###J
Other Resistors	RS1/16S###J

OTHERS

X6101 CRYSTAL OSCILLATOR (27MHz)	ASS1175
-------------------------------------	---------

[AD BLOCK]

SEMICONDUCTORS

IC6402,IC6602	AD9883AKST-110
IC6404,IC6604	BA7078AF
IC6401,IC6601	SM5301BS
IC6405,IC6408,IC6603,IC6607	TC74VHC126FT
Q6402,Q6405,Q6602,Q6605	HN1B04FU
Q6401,Q6601	RN1303

Mark No.	Description	Part No.
----------	-------------	----------

A MR MAIN BOARD ASSY

[MICHAEL BLOCK]

SEMICONDUCTORS

IC6107,IC6255	PD0278A
IC6101	TC7W126FU
Q6108,Q6258	2SA1586
Q6101,Q6102,Q6251,Q6252	HN1A01FU
Q6106,Q6107,Q6256,Q6257	HN1B04FU

COILS AND FILTERS

F6101,F6103,F6105,F6251,F6253	ATF1194
EMI FILTER	
L6107,L6257	LCTAW220J2520
L6101,L6103,L6105,L6106,L6251	LCTAW6R8J2520
L6253,L6255,L6256	LCTAW6R8J2520

CAPACITORS

C6188,C6327	ACH1357
C6186 (100uF/6.3V)	ACH1364
C6182,C6251,C6321 (100uF/6.3V)	ACH1396
C6126,C6142,C6163,C6164	CCSRCH330J50
C6171,C6172,C6272,C6288	CCSRCH330J50

C6305,C6306,C6312,C6313	CCSRCH330J50
C6127,C6143,C6273,C6289	CCSRCH680J50
C6151,C6297	CKSQYB225K10
C6112,C6114,C6258,C6260	CKSRYB102K50
C6119,C6136,C6153,C6154,C6168	CKSRYB104K16

Mark No. Description**Part No.****COILS AND FILTERS**

F6401,F6601 EMI FILTER

ATF1194

CAPACITORS

C6445,C6644

C6438,C6638

C6404,C6424,C6604,C6624

C6408,C6411,C6412,C6431

C6434,C6435,C6608,C6611,C6612

CCSRCH221J50

CKSRYB103K50

CKSRYB104K16

CKSRYB105K10

CKSRYB105K10

C6631,C6633,C6634

C6421,C6621

C6442,C6641

C6409,C6414,C6423,C6609,C6614

C6623

CKSRYB105K10

CKSRYB105K6R3

CKSRYB223K50

CKSRYB473K16

CKSRYB473K16

C6443,C6642

C6402,C6602

C6401,C6601

C6405-C6407,C6410,C6413

C6415-C6420,C6425,C6427-C6429

CKSRYB474K10

CKSRYB822K50

CKSRYB823K16

CKSSYF104Z16

CKSSYF104Z16

C6439,C6440,C6444,C6448

C6605-C6607,C6610,C6613

C6615-C6620,C6625,C6627-C6629

C6639,C6643,C6645,C6647

C6422,C6441,C6622,C6640

(10uF/16V)

CKSSYF104Z16

CKSSYF104Z16

CKSSYF104Z16

CKSSYF104Z16

DCH1165

RESISTORS

R6482,R6489,R6681,R6685

R6405,R6410,R6418,R6424

R6438,R6439,R6608,R6613,R6621

R6627,R6643,R6644

R6409,R6416,R6417,R6612

RAB4CQ101J

RAB4CQ330J

RAB4CQ330J

RAB4CQ330J

RS1/16S1000F

R6619,R6620

R6422,R6625

R6404,R6408,R6423,R6607,R6611

R6626

R6401,R6601

RS1/16S1000F

RS1/16S1101F

RS1/16S1500F

RS1/16S1500F

RS1/16S2701F

R6406,R6413,R6414,R6426,R6428

R6429,R6465,R6472,R6478,R6479

R6609,R6610,R6617,R6629,R6631

R6632,R6666,R6673,R6679,R6680

Other Resistors

RS1/16S###J

RS1/16S###J

RS1/16S###J

RS1/16S###J

RS1/16SS###J

**[HDMI RX BLOCK]
SEMICONDUCTORS**

IC6880

IC6803

IC6881

IC6806

Q6884

24LC02B(I)SN

PCM1742KE

SI9993CTG100

TC74HC4538AFT

RN1303

Q6881

Q6880

D6880,D6881

D6806,D6807,D6884

D6883

RN1902

SM6K2

1SS302

DAN202U

UDZS6.8B

COILS AND FILTERS

F6881,F6882 EMI FILTER

ATF1194

CAPACITORS

C6911 (22uF/6.3V)

C6921,C6922 (100uF/6.3V)

ACH1362

ACH1364

Mark No. Description**Part No.**

C6880,C6882,C6884,C6886

C6888,C6889,C6892,C6895,C6896

C6899-C6902,C6905,C6906,C6915

CCSRCH101J50

CCSRCH101J50

CCSRCH101J50

C6917,C6919

⚠ C6927,C6928

C6913

C6920

C6831,C6848,C6881,C6883,C6885

CCSRCH101J50

CCSRCH221J50

CKSRYF103Z50

CKSRYF473Z50

CKSSYF104Z16

C6887,C6890,C6891,C6893,C6894

C6897,C6898,C6903,C6904

C6907-C6910,C6912,C6916,C6918

C6923-C6926

CKSSYF104Z16

CKSSYF104Z16

CKSSYF104Z16

CKSSYF104Z16

C6802,C6849,C6851,C6914 (10uF/16V) DCH1165

RESISTORS

R6826,R6881-R6883,R6885,R6892

R6896,R6901,R6904

R6914

R6889

R6915

RAB4CQ101J

RAB4CQ101J

RS1/16S1500F

RS1/16S3900F

RS1/16S3901F

R6917-R6922

R6872

Other Resistors

RS1/16S75R0F

RS1/16S###J

RS1/16SS###J

OTHERS

JA6881 HDMI CONNECTOR

AKP1232

**[ROZ BLOCK]
SEMICONDUCTORS**

IC6951

PD6435A

CAPACITORS

C6951 (100uF/6.3V)

C6959,C6960

C6952-C6954,C6956-C6958

C6961,C6962,C6964-C6968

ACH1364

CCSRCH150J50

CKSSYF104Z16

CKSSYF104Z16

RESISTORS

R6951-R6953,R6956-R6962,R6966

R6968,R6972

R6945,R6946,R6988

Other Resistors

RAB4CQ100J

RAB4CQ100J

RAB4CQ103J

RS1/16SS###J

OTHERS

X6951 CERAMIC RESONATOR

ASS1169

**[CELIA BLOCK]
SEMICONDUCTORS**

IC7001,IC7002

IC7004

IC7003

HY57V643220CT-7

PE5362A

TC74LCX125FT

COILS AND FILTERS

F7001,F7002 EMI FILTER

ATF1194

CAPACITORS

C7029,C7041 (100uF/6.3V)

C7064

⚠ C7025,C7066,C7067

C7001-C7024,C7026-C7028

C7032-C7040,C7042-C7063

ACH1364

CCSRCH100D50

CCSRCH221J50

CKSSYF104Z16

CKSSYF104Z16

C7031 (10uF/16V)

DCH1165

Mark No. Description Part No.**RESISTORS**

R7013-R7018
Other Resistors

OTHERS

X7001 CRYSTAL OSCILLATOR
(85MHz)

**[MIKE BLOCK]
SEMICONDUCTORS**

IC7152
IC7101

COILS AND FILTERS

F7101,F7102 EMI FILTER

CAPACITORS

C7103,C7120 (100uF/6.3V)
C7101,C7102,C7104-C7119
C7121-C7135,C7158,C7160-C7162

RESISTORS

R7113,R7115,R7119,R7121
R7123,R7124
R7102,R7105-R7108,R7110,R7111
Other Resistors

**[MAIN UCOM BLOCK]
SEMICONDUCTORS**

IC7205
IC7207
IC7210
IC7203,IC7206
IC7209

IC7202
Q7201
D7201

CAPACITORS

C7205 (100uF/6.3V)
⚠ C7241-C7243,C7245
C7213,C7218
C7201
C7226,C7237

C7216
C7217
C7209-C7212,C7214,C7215,C7219
C7221-C7225,C7227-C7229
C7232-C7234,C7238,C7240

RESISTORS

R7221,R7229,R7241,R7248-R7250
R7201
R7224,R7227,R7252
Other Resistors

OTHERS

CN7203 3P CONNECTER
CN7201 PLUG 8-P
CN7202 CONNECTOR
X7201 CERAMIC RESONATOR

**[MR IF BLOCK]
SEMICONDUCTORS**

RAB4CQ220J
RS1/16SS###J

ASS1174

MBM29PL3200BE70PFV
PD5855A

ATF1194

ACH1364
CKSSYF104Z16
CKSSYF104Z16

RAB4CQ101J
RAB4CQ101J
RAB4CQ330J
RS1/16SS###J

24LC128(I)SN
MB91F355APMTGE1
PST3612UR
PST3628UR
TC74VHC08FT

TC74VHC125FT
2SJ461A
1SS355

ACH1364
CCSRCH221J50
CCSRCH7R0D50
CKSRYB103K50
CKSRYB104K16

CKSRYB472K50
CKSRYF103Z50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

RAB4CQ101J
RAB4CQ472J
RS1/16S###J
RS1/16SS###J

AKM1213
AKM1225
AKM1242
ASS1170

Mark No. Description Part No.

IC7456
IC7454
IC7453
IC7401
IC7404

IC7403
IC7451
Q7406
Q7405
Q7403,Q7407,Q7408

Q7451
Q7401
Q7404
D7401-D7406,D7457

COILS AND FILTERS

F7401-F7404 EMI FILTER
L7401 (3.3uH)

CAPACITORS

C7474 (330uF/6.3V)
C7456,C7460,C7465,C7468
(100uF/6.3V)
C7401,C7402
C7475,C7477

C7403,C7404,C7406,C7407
C7410,C7411,C7413,C7414,C7419
C7405,C7412,C7415,C7417,C7418
C7420,C7423,C7451,C7452
C7454,C7455,C7458,C7459

C7466,C7467,C7469,C7473,C7476
C7416,C7421,C7424,C7457 (10uF/16V)

RESISTORS

R7425,R7449-R7452,R7454
R7496-R7499
R7453
R7394
R7395,R7410

R7456
R7428-R7431
Other Resistors

OTHERS

CN7454,CN7455 50P CONNECTER
CN7453 PLUG 15-P
CN7402 16P FFC CONNECTOR
CN7451 CONNECTOR

**[REGULATOR BLOCK]
SEMICONDUCTORS**

IC7302
IC7151
IC7301
IC7452
Q6104,Q6105,Q6109,Q6253-Q6255

Q7303
Q7302
Q7301
Q7304
Q7305

D7302
D7301

Part No.

PQ015YZ01ZP
PQ050DZ01ZPH
PQ3DZ13
SII170BCLG64
TC74VCX08FT

TC74VCX574FT
TC74VHC08FT
2SA1586
HN1C01FU
RN1303

RN1901
RN1902
RN2901
1SS355

ATF1194
ATH1132

ACH1365
ACH1396
CCSRCH100D50
CCSRCH221J50

CCSRCH820J50
CCSRCH820J50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16
DCH1165

RAB4CQ101J
RAB4CQ101J
RAB4CQ103J
RS1/16S1001F
RS1/16S5100F

RS2LMFR82J
RS1/16S###J
RS1/16SS###J

AKM1201
AKM1232
AKM1234
AKM1269

M5291FP
MBM29PL3200BE70PFV
NJM12904V
TC74VHC126FT
2SA1586

2SA1586
2SD1664
HN1C01FU
RN1303
TPC6104

1SS355
D1FL20U(S)

Mark No.	Description	Part No.
COILS AND FILTERS		
F7405-F7408 L7301	ATF1209 ATH1127	
CAPACITORS		
C7483 (330uF/6.3V) C7304 (100uF/16V) ⚠ C7244 C7301 ⚠ C6927,C6928,C7241-C7243,C7245 ⚠ C7478-C7482 C7303 C6149,C6187,C6189,C6322,C6323 C6325,C7153,C7155-C7157,C7471 C7302,C7453 (10uF/16V)	ACH1365 ACH1394 CCSRCH100D50 CCSRCH102J50 CCSRCH221J50 CCSRCH221J50 CCSRCH681J50 CKSSYF104Z16 CKSSYF104Z16 DCH1165	
RESISTORS		
R6332-R6334 R7470,R7477 R6834,R6836,R6944,R6947-R6950 R6835,R6839,R6937,R6938 R7319 R7320-R7323 R7318 R7312 R7316 R7309 R7315 R7317 R7459 Other Resistors	RAB4CQ0R0J RAB4CQ101J RAB4CQ103J RAB4CQ470J RS1/10S0R0J RS1/10S1R2J RS1/10S681J RS1/16S1101F RS1/16S1201F RS1/16S1501F RS1/16S3901F RS1/16S8201F RS2LMF3R9J RS1/16SS###J	
OTHERS		
CN7301 CONNECTOR CN7401 DVI SOCKET (24P)	AKM1242 AKP1250	

B AV BOARD ASSY [TUNER BLOCK] **SEMICONDUCTORS**

IC7502 IC7504 IC7501 Q7503,Q7504,Q7506,Q7513,Q7522 Q7524,Q7527,Q7528 Q7511,Q7517 Q7501,Q7502,Q7509,Q7512,Q7514 Q7518-Q7521,Q7525,Q7526,Q7530 Q7533-Q7536 Q7516 Q7505 D7504 D7502,D7503 D7501	MSP3417G PST9246N TDA9818TS 2SA1586 2SA1586 2SC4082 2SC4116 2SC4116 2SC4116 2SC4213 RN1303 1SS355 1SS356 UDZS33B
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COILS AND FILTERS

F7510 BGS TRAP FILTER L7501 L7512,L7513 L7514 L7511	ATF1210 LCTAW100J2520 LCTAW150J2520 LCTAW4R7J2520 LCTAW8R2J2520
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<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
L7516,L7519		LCTAWR22J2520
L7505,L7507		LCTAWR68J2520
F7506	SAW FILTER	VTF1177
F7503	SAW FILTER	VTF1179
F7504	IF TRAP FILTER	VTF1180
F7505	IF TRAP FILTER	VTF1181
F7501	TRAP FILTER	VTF1183
L7504	VCO COIL	VTL1164

CAPACITORS

C7507 (220uF/10V) C7552 (3.3uF/50V) C7542 (47uF/16V) C7509,C7525,C7549,C7591,C7599 (100uF/16V) C7596 (33uF/10V) C7501 (10uF/50V) C7564,C7573,C7581 C7515 C7568 C7578 C7532,C7598 C7567 C7556,C7558 C7576 C7569,C7570 C7537,C7539 C7502,C7520,C7522,C7523 C7534,C7535,C7579,C7580 C7514,C7524,C7528,C7536,C7545 C7554,C7572,C7584 C7541 C7503 C7559,C7561,C7588 C7590 C7504,C7505,C7526 C7540 C7518 C7557,C7560,C7583,C7589 C7563,C7571	ACH1368 ACH1385 ACH1391 ACH1394 ACH1398 ACH1402 CCSRCH102J50 CCSRCH120J50 CCSRCH121J50 CCSRCH181J50 CCSRCH330J50 CCSRCH470J50 CCSRCH560J50 CCSRCH680J50 CCSRCJ3R0C50 CKSQYB225K10 CKSRYB102K50 CKSRYB102K50 CKSRYB103K50 CKSRYB103K50 CKSRYB104K16 CKSRYB105K10 CKSRYB152K50 CKSRYB221K50 CKSRYB222K50 CKSRYB224K10 CKSRYB332K50 CKSRYB471K50 CKSRYB472K50
---	--

C7582 C7575 C7506,C7510,C7513,C7527,C7531 C7547,C7550,C7551,C7555,C7577 C7511,C7546,C7548,C7553,C7562	CKSRYF103Z50 CKSRYF104Z16 CKSRYF104Z50 CKSRYF104Z50 DCH1165
---	---

C7587 (10uF/16V) DCH1165

RESISTORS

R7568 R7633 R7524 R7554 R7544,R7552 R7504 R7655,R7656 R7555 VR7504 VR7502	RD1/2LMF100J RS1/16S1601F RS1/16S2203F RS1/16S2700F RS1/16S2702F RS1/16S3302F RS1/16S5600F RS1/16S6800F CCP1390 CCP1398
--	--

Other Resistors RS1/16S###J

OTHERS

Mark No. Description Part No.

X7501 CERAMIC RESONATOR VSS1189
(18.432 MHz)

⚠ U7501 TV FRONTEND AXF1119

[AV IO BLOCK] SEMICONDUCTORS

IC7701,IC7702 TC74VHC125FT
Q7706-Q7708,Q7710,Q7716 2SA1586
Q7723,Q7724,Q7728,Q7740,Q7743 2SA1586
Q7748,Q7752,Q7753 2SA1586
Q7702,Q7703,Q7705,Q7712-Q7714 2SC4116

Q7719,Q7720,Q7722,Q7726,Q7727 2SC4116
Q7729-Q7731,Q7733,Q7735,Q7737 2SC4116
Q7739,Q7742,Q7744,Q7746,Q7747 2SC4116
Q7749-Q7751,Q7758-Q7760 2SC4116
Q7757 DTA124EUA

Q7717,Q7718,Q7725,Q7734,Q7736 HN1A01FU
Q7701,Q7745 HN1C01FU
Q7715,Q7762 RN1303
Q7704,Q7711,Q7721,Q7738,Q7761 RN2303
D7709,D7710,D7715,D7722,D7736 1SS301

D7705-D7708,D7713,D7714,D7716 1SS302
D7719,D7720 1SS302
D7703,D7721 1SS355
D7701,D7711,D7717 UDZS12B
D7702,D7712,D7718,D7723-D7735 UDZS9.1B

COILS AND FILTERS

L7701,L7702,L7705,L7706 LCTAW1R0J2520
L7709,L7710 LCTAW1R0J2520
L7703,L7704,L7707,L7708 LCTAW560J2520
L7711-L7714 LCTAW560J2520

SWITCHES AND RELAYS

S7701 ASH1046

CAPACITORS

C7747,C7748 (1.0uF/50V) ACH1383
C7767 (22uF/16V) ACH1400
C7706,C7709,C7728,C7730,C7743 CEHAT471M10
C7756 CEHAT471M10
C7716 CEVWNP470M10

C7757 CKSRYB103K50
C7701-C7703,C7714,C7719 CKSRYB105K10
C7722-C7726,C7729,C7732,C7733 CKSRYB105K10
C7735,C7736,C7740,C7746,C7749 CKSRYB105K10
C7752-C7754,C7758,C7760,C7761 CKSRYB105K10

C7773-C7780 CKSRYB222K50
C7768 CKSRYB224K10
C7704,C7705,C7711,C7727,C7731 CKSRYF104Z50
C7739,C7741,C7744,C7751 CKSRYF104Z50
C7765,C7766 CKSRYF104Z50

C7707,C7708,C7712,C7713,C7715 DCH1165
C7717,C7718,C7720,C7734 DCH1165
C7737,C7738,C7742,C7745,C7750 DCH1165
C7755,C7759,C7762-C7764 (10uF/16V) DCH1165

RESISTORS

R7708,R7717,R7756,R7757,R7761 RS1/10S151J
R7777,R7801,R7802,R7809,R7810 RS1/10S151J
R7820,R7834 RS1/10S151J
R7841 RS1/16S1001F
R7842 RS1/16S1501F

Mark No. Description Part No.

Other Resistors RS1/16S###J

OTHERS

JA7703 6P PIN JACK AKB1300
JA7704 PINJACK+MINI DIN 4P AKB1307
JA7705 RGB CONNECTOR AKB1311
JA7701 RGB CONNECTOR AKB1316

[AV SW BLOCK] SEMICONDUCTORS

IC8005 AN15852A
IC8006 BH3540AFS
IC8007 BH3544F
IC8002 CXA2069Q
IC8004 NJM12904V

IC8003 TC4052BFT
IC8001 TC7WH123FU
Q8005-Q8008 2SA1586
Q8019-Q8022,Q8025-Q8027 2SC4116
Q8023 DTA124EUA

Q8024 DTC124EUA
Q8028 HN1B04FU
Q8011 HN1C01FU
D8015-D8017 1SS355
D8013,D8014 UDZS9.1B

CAPACITORS

C8075 (47uF/16V) ACH1391
C8005,C8006,C8056 (100uF/16V) ACH1394
C8064,C8065 (10uF/16V) ACH1399
C8014 (22uF/16V) ACH1400
C8022,C8027 CCSRCH181J50

C8057 CCSRCH270J50
C8019,C8038 CCSRCH681J50
C8002-C8004,C8008,C8009,C8016 CKSRYB105K10
C8050,C8063,C8066,C8069,C8070 CKSRYB105K10
C8072-C8074 CKSRYB105K10

C8071,C8076,C8077 CKSRYB471K50
C8001,C8013,C8015,C8025,C8026 CKSRYF104Z50
C8031-C8036,C8039,C8042-C8044 CKSRYF104Z50
C8048,C8049,C8052,C8053,C8055 CKSRYF104Z50
C8059 CKSRYF104Z50

C8010,C8012,C8018,C8023,C8024 DCH1165
C8028,C8037,C8040,C8041 DCH1165
C8045-C8047,C8051,C8060,C8061 DCH1165
(10uF/16V)

RESISTORS

R8125,R8127 RD1/2LMF120J
Other Resistors RS1/16S###J

[AV REG BLOCK] SEMICONDUCTORS

IC8505,IC8506 PQ05DZ11
IC8504 PQ09DZ11
Q8509,Q8514 RN1303
Q8512 RN2303
Q8510 SM6K2

Q8511 TPC8003
D8509-D8511 1SS355

COILS AND FILTERS

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
F8501-F8504,F8506,F8508,F8510	EMI FILTER	ATF1194
<u>CAPACITORS</u>		
C8517,C8523 (100uF/6.3V)	ACH1364	
C8510,C8515,C8521 (22uF/16V)	ACH1370	
C8512 (100uF/16V)	ACH1394	
C8511,C8513,C8516,C8518,C8522	CKSRYB103K50	
C8524,C8530	CKSRYB103K50	
<u>RESISTORS</u>		
R8528,R8531	RS1LMF1R0J	
R8525	RS1LMF3R3J	
R8554	RS3LMF121J	
Other Resistors	RS1/16S###J	
<u>OTHERS</u>		
CN8503,CN8504 PLUG 14-P	AKM1237	
<u>[BOARD IF BLOCK]</u>		
<u>CAPACITORS</u>		
C8653-C8655	DCH1165	
<u>RESISTORS</u>		
All Resistors	RS1/16S###J	
<u>OTHERS</u>		
CN8652-CN8654 50P CONNECTER	AKM1201	
CN8658,CN8660	AKM1233	
12P FFC CONNECTOR		
<u>[UIF UCOM BLOCK]</u>		
<u>SEMICONDUCTORS</u>		
IC8705	24LC01B	
IC8702	HD64F3687FP	
IC8703	PST9231N	
IC8701	TC74VHC08FT	
IC8704	TC7W126FU	
Q8701	2SJ461A	
Q8702	RN1303	
Q8708	RN2303	
<u>CAPACITORS</u>		
C8711 (100uF/16V)	ACH1394	
C8706,C8707	CCSRCH120J50	
C8709	CKSRYB472K50	
C8701-C8705,C8708,C8712,C8713	CKSRYF104Z50	
C8716 (10uF/16V)	DCH1165	
<u>RESISTORS</u>		
R8719	RAB4C101J	
R8702,R8704,R8720,R8745	RAB4C103J	
Other Resistors	RS1/16S###J	
<u>OTHERS</u>		
CN8701 PLUG 8-P	AKM1225	
X8702 CERAMIC RESONATOR	ASS1168	
X8701 CRYSTAL OSCILLATOR (32.768kHz)	ASS1172	
<u>[TELETEXT BLOCK]</u>		
<u>SEMICONDUCTORS</u>		
IC8903	NJM2233BM	
IC8901	PST9230N	
IC8904	SDA6000	

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
IC8906		TA1287FG
IC8905		TC74VHC08FT
IC8907		TC7SH04FU
IC8902		TC7W126FU
Q8901,Q8904-Q8906		2SA1586
Q8903,Q8909		2SC4116
Q8902,Q8910		RN1303
Q8907,Q8908		RN1902
D8902		UDZS3.0B
D8901		UDZS3.9B
<u>COILS AND FILTERS</u>		
L8901		LCTAW270J2520
<u>CAPACITORS</u>		
C8906 (100uF/16V)		ACH1394
C8916,C8917		CCSRCH150J50
C8908		CCSRCH181J50
C8904		CKSRYB102K50
C8903		CKSRYB103K50
C8926,C8936-C8938,C8940-C8942		CKSRYB104K16
C8901		CKSRYB471K50
C8902,C8905,C8909-C8911		CKSRYF104Z50
C8914,C8915,C8918-C8920		CKSRYF104Z50
C8923-C8925,C8927-C8935,C8939		CKSRYF104Z50
C8907,C8912,C8913 (10uF/16V)		DCH1165
<u>RESISTORS</u>		
R8905-R8907,R8922,R8960,R8991		RAB4C101J
Other Resistors		RS1/16S###J
<u>OTHERS</u>		
CN8901 PLUG 8-P		AKM1225
K8904, K8905 TEST PIN		AKX9002
X8901 CRYSTAL OSCILLATOR		ASS1180
<u>[MEMORY SW BLOCK]</u>		
<u>SEMICONDUCTORS</u>		
IC9104		HY57V641620HGT-H
IC9106,IC9108		TA1287FG
IC9105,IC9107		TC4051BF
Q9103,Q9106		2SA1586
Q9101,Q9105		2SC4116
D9101-D9104		1SS355
<u>CAPACITORS</u>		
C9103-C9106,C9111,C9112		CKSRYB104K16
C9121,C9122,C9125-C9127,C9132		CKSRYB104K16
C9117,C9131		CKSRYB474K10
C9101,C9107,C9108,C9110		CKSRYF104Z50
C9113,C9114,C9116,C9118-C9120		CKSRYF104Z50
C9124,C9128-C9130		CKSRYF104Z50
<u>RESISTORS</u>		
All Resistors		RS1/16S###J
<u>OTHERS</u>		
3401 LABEL(BLUE16)		AAX2787
7701 SHIELD PLATE S		ANG2636
7702 SHIELD PLATE W		ANG2643

Mark No. Description Part No.**C MDR ASSY
SEMICONDUCTORS**IC9301,IC9302
Q9301,Q9302
Q9303TC74VHC08FT
2SC4116
DTA124EUA**CAPACITORS**C9304
C9301,C9305-C9308
C9302,C9303CCSRCH101J50
CCSRCH471J50
CKSRYF104Z50**RESISTORS**

All Resistors

RS1/16S###J

OTHERSCN9301 SOCKET (20P)
CN9302 16P CONNECTORAKP1226
VKN1220**D SR ASSY
SEMICONDUCTORS**IC9451
IC9453
IC9452
Q9455,Q9458
Q9453SP3232ECY
TC74VHC00FT
TC74VHC125FT
2SA1586
2SC4116Q9454,Q9456,Q9457
D9451,D9452,D9459,D9460DTC124EUA
1SS355**CAPACITORS**C9456,C9457 (10uF/16V)
C9451-C9455,C9459,C9460ACH1399
CKSRYF104Z16**RESISTORS**

All Resistors

RS1/16S###J

OTHERSJA9453 MINI JACK(4P)
JA9451 9P D-SUB SOCKET
JA9452 RIMOCON JACK
CN9452 12P CONNECTORAKN1073
AKP1240
RKN1004
VKN1216**E FRONT ASSY
SEMICONDUCTORS**IC9501
IC9602
IC9601
IC9502
Q9501,Q950224LCS21A
MM1522XU
NJM12904V
TC74VHC08FT
DTC124EUAD9503
D9506-D9508
D9501,D9502,D9504,D9505
D9512,D9513
D9509-D95111SS301
1SS302
UDZS5.6B
UDZS5.6B
UDZS9.1B**COILS AND FILTERS**L9503-L9506
L9501,L9502LCTAW1R0J2520
LCTAW560J2520**CAPACITORS**

C9520-C9522

ACH1357

Mark No. Description Part No.C9605 (47uF/16V)
C9517,C9518
C9501,C9502
C9505,C9506,C9531-C9533ACH1391
CCSRCH220J50
CEHAT471M10
CKSRYB103K50C9504,C9514
C9507-C9512
C9503
C9516,C9519,C9602,C9606
C9513,C9515,C9523CKSRYB104K16
CKSRYB105K10
CKSRYB473K16
CKSRYF104Z16
DCH1165**RESISTORS**R9602
R9504,R9507,R9508,R9534-R9536
Other ResistorsRS1/16S1001F
RS1/16S75R0F
RS1/16S###J**OTHERS**JA9501 PIN JACK(3P)
CN9502 50P CONNECTER
CN9503 MINI JACK
JA9502 4P MINIDIN SOCKET(S)
JA9505 15P D-SUB SOCKETAKB1303
AKM1201
AKN1028
AKP1238
AKP1241JA9503 RIMOCON JACK
9501 F GROUNDIG PLATERKN1026
ANG2657**F LED ASSY
SEMICONDUCTORS**Q9652
D9654
D9653RN2902
SML-310MT
SML-311UT**CAPACITORS**

C9651

CKSRYB103K50

RESISTORS

All Resistors

RS1/16S###J

OTHERS

CN9651 PH CONNECTOR

S7B-PH-SM3

**G REG ASSY
SEMICONDUCTORS**IC8509
IC8501,IC8503
IC8508
IC8507
Q8507BD6522F
M5291FP
PQ025EZ01ZP
PQ033EZ01ZP
2SC4116Q8504,Q8508
Q8515
Q8503,Q8513
Q8516
D8501,D8504,D8506,D8508HN1C01FU
RN1303
RN2303
TPC8003
1SS355D8512,D8513
D8507
D85021SS355
HZU2.2B
UDZS5.1B**COILS AND FILTERS**F8511 EMI FILTER
L8501,L8502 INDUCTORATF1194
ATH1126**CAPACITORS**

Mark No.	Description	Part No.
	C8536 (47uF/16V)	ACH1391
	C8501,C8503,C8528,C8533 (100uF/6.3V)	ACH1396
	C8507,C8526,C8531 (22uF/16V)	ACH1400
	C8504,C8519	CCSRCH221J50
	C8520	CEAT101M50
	C8537,C8543,C8545	CEHAZL471M16
	C8527,C8529,C8532,C8534,C8540	CKSRYB103K50
	C8542,C8546,C8547	CKSRYB103K50
	C8502,C8514	CKSRYB821K50
	C8506,C8508,C8525	CKSRYF104Z16
	C8505,C8538,C8539,C8541,C8544	DCH1165

RESISTORS

R8502,R8508	ACN1164
R8506,R8510,R8511,R8522,R8530	ACN1188
R8533-R8535	ACN1188
R8503	RS1/16S1001F
R8509	RS1/16S1101F
R8504	RS1/16S3301F
R8520	RS1/16S3302F
R8543,R8545	RS1LMF1R0J
Other Resistors	RS1/16S###J

OTHERS

CN8505,CN8506 SOCKET 14-P	AKP1247
CN8651 PLUG(15P)	KM200NA15
U8502 DD CON UNIT	AXY1066
U8510 DD CON UNIT	AXY1070



AC SW ASSY

SWITCHES AND RELAYS

⚠ S9341	ASG1093
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OTHERS

CN9341 2P-SIDE VA-CONNECTOR	S2P3-VH
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POWER SUPPLY UNIT

POWER SUPPLY UNIT has no service part.



PC CARD MODULE

PC CARD MODULE has no service part.

6. ADJUSTMENT

- At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
- Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
- Use a stable AC power supply.

6.1 HOW TO ENTER SERVICE FACTORY MODE

■ Refer to the technical document (Service Know-How).

6.2 POSSIBLE CASES WHERE READJUSTMENT IS REQUIRED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	No adjustment required
AV BOARD Assy	➡	No adjustment required
MR MAIN BOARD Assy	➡	No adjustment required
PC Card Unit	➡	No adjustment required
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
AV BOARD Assy	➡	If the front end is replaced, adjustment is required.
MR MAIN BOARD Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
PC CARD Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
Other assemblies	➡	No adjustment required

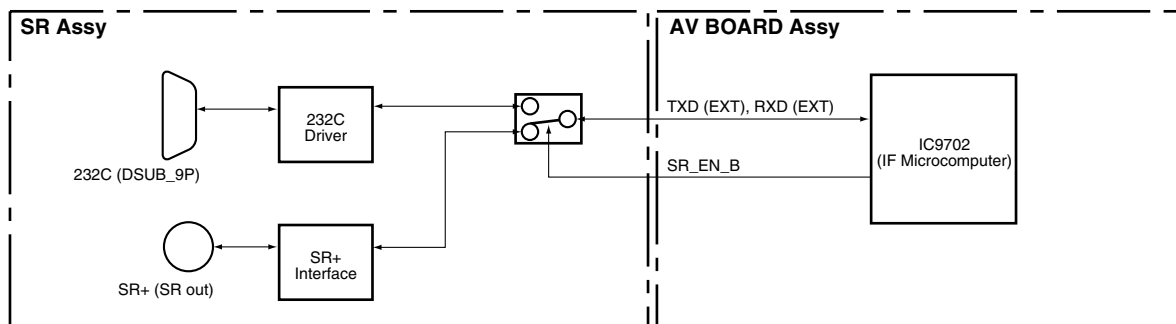
■ Adjustment items

- AFC Adjustment
- RF-AGC Adjustment
- L'AFC Adjustment
- Video Level Adjustment

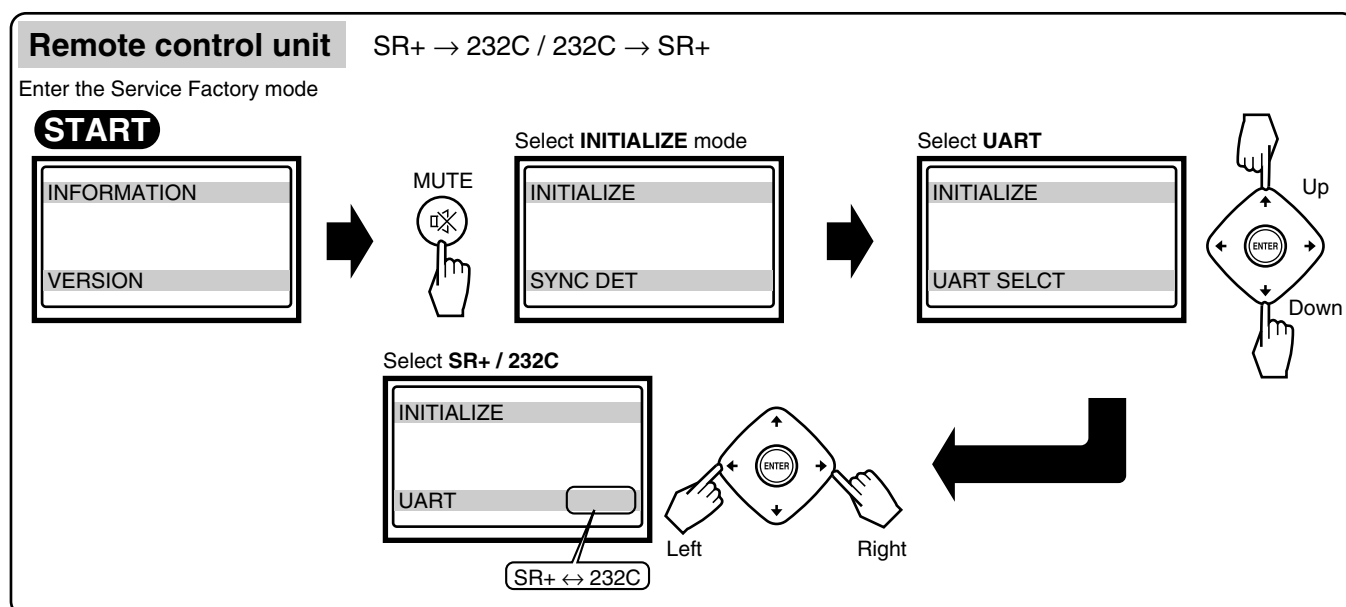
6.3 USING RS-232C COMMANDS

For the PDP-434HD and -504HD series Plasma Displays, the circuitry is structured as shown in the diagram below to support the SR+ system. Controlling with either the SR+ system or RS-232C commands can be selected. As the SR+ system is selected at shipment, to control with RS-232C commands in servicing it is necessary to switch the paths. After servicing, be sure to return the setting to the SR+ system.

● Rough diagram of switching between SR+ and RS-232C

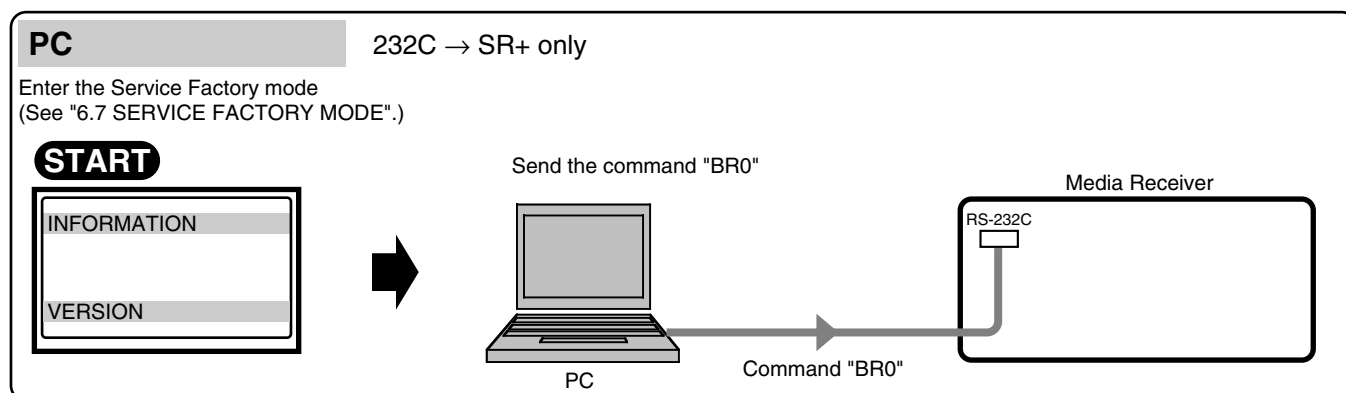


● How to switch from SR+ to RS-232C



Tips: How to change the SR+/RS-232C setting without entering Service Factory mode

Hold the **VOLUME** \triangleleft or \triangleleft key on the remote control unit pressed for 3-10 seconds during Standby mode. Then within 3 seconds after the key is released, hold the **2-screen** \blacksquare key on the remote control unit pressed for 3-10 seconds. Then within 3 seconds after the key is released, use the **SET** key on the remote control unit to set to RS-232C (the baud rate last selected is chosen) or the **HOME MENU** key to set to SR+.

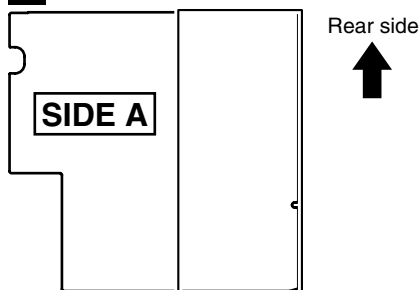
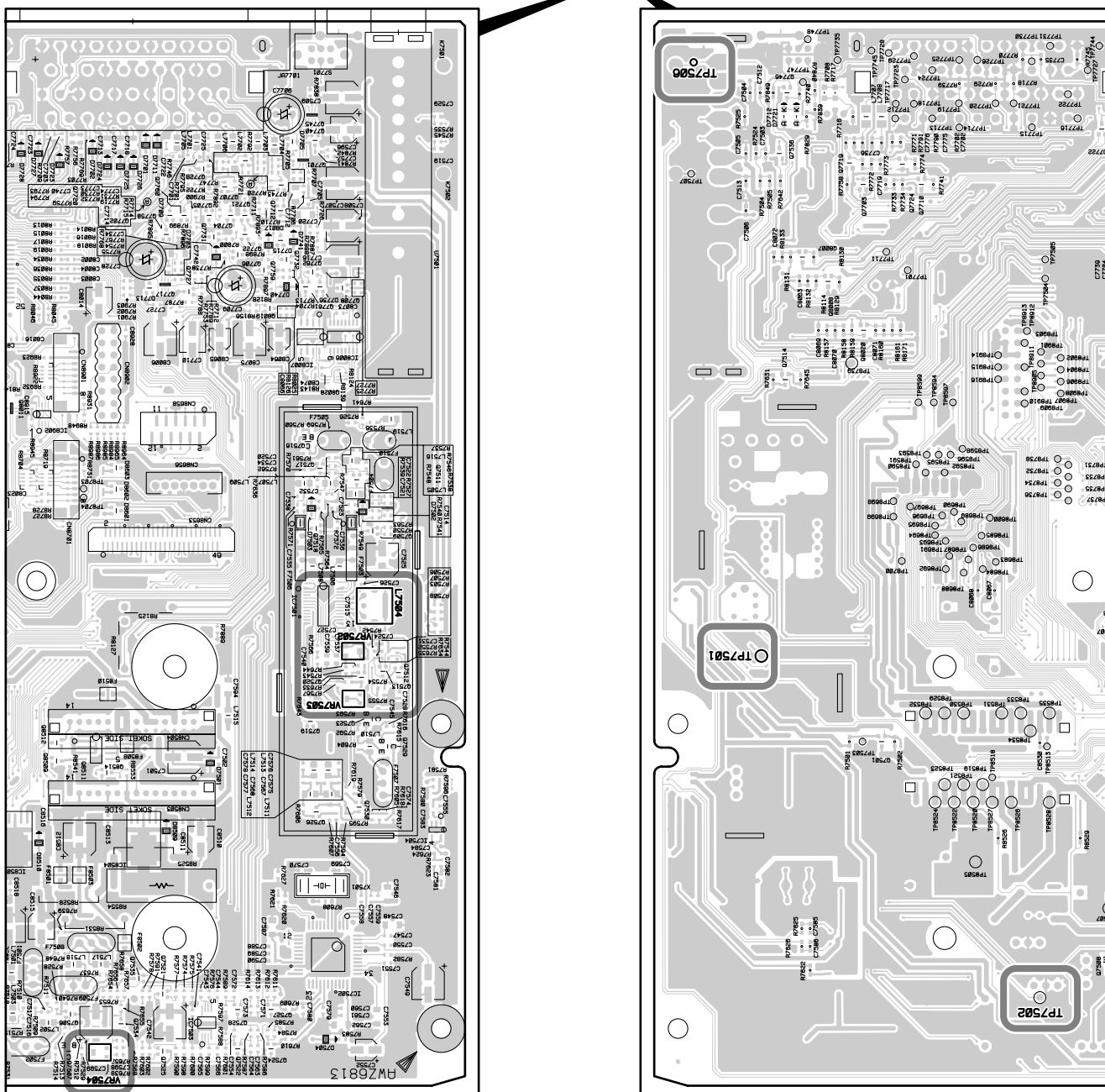


6.4 ADJUSTMENT ITEMS



If readjustment is necessary because of adjustment error at shipment, perform adjustments as shown below.

● Adjustment Points

B AV BOARD ASSY**SIDE A****SIDE B**

SIDE A

TP752

TP7501

TP7502

102

1 AFC Adjustment

Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V
PAL-B/G
White bar 100%

START



Select 175.25 MHz

1

9



L7504
(AV BOARD Assy)(1/8)



Adjust TP7501 to $2.5 \pm 0.1V$

Digital multimeter
/ Tester

TP7501
(AV BOARD Assy)

2 RF-AGC Adjustment

Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 68dB μ V
PAL-B/G
Multiburst

START



Select 196.25 MHz

1

9



VR7502
(AV BOARD Assy)(1/8)



Adjust TP7506 to $3.0 \pm 0.1V$

Digital multimeter
/ Tester

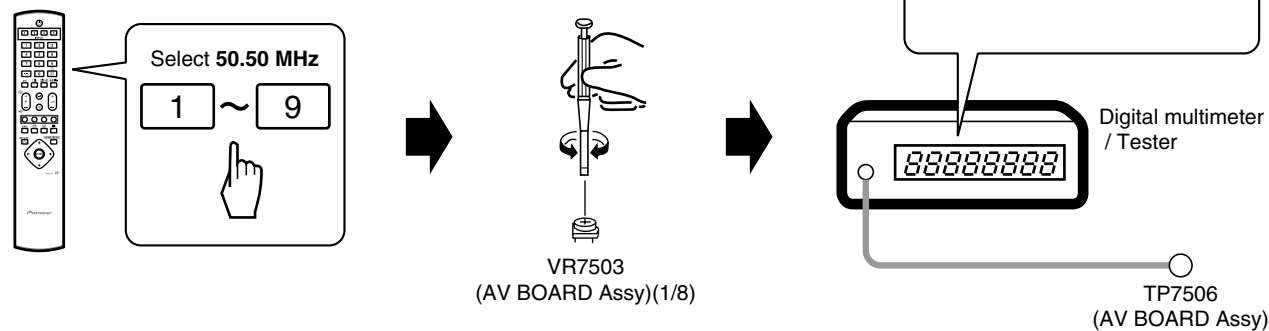
TP7506
(AV BOARD Assy)

③ L'AFC Adjustment

Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V
SECAM-L'
Color bar

START

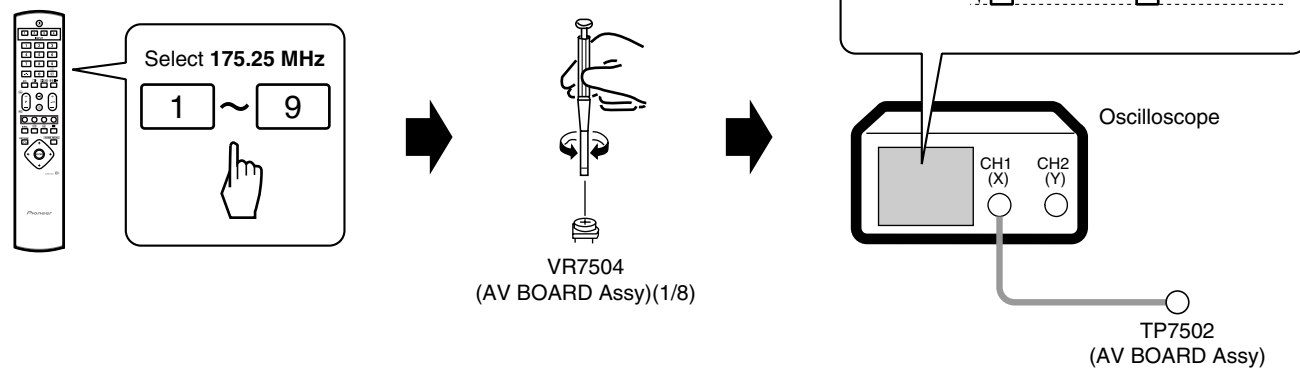


④ Video Level Adjustment

Equipment : SG

Condition : Input RF level 75dB μ V
PAL-B/G
White bar 100%

START



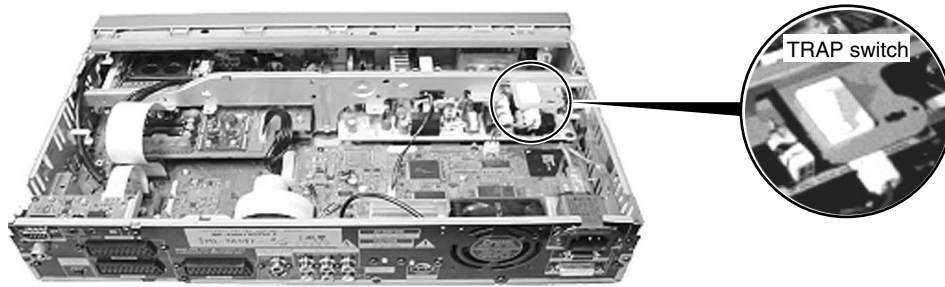
6.5 TRAP SWITCH

● Outline and Notes

For video data transmission from the Media Receiver to the PDP-434HD and PDP-504HD-series Plasma Displays, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again "if the upper plate of the unit is accidentally opened," in order to prevent the panel technology from being leaked out.

The TRAP switch is disabled while the unit is turned off.

When performing internal diagnosis of the PDP, fix the switch to the OFF position using adhesive tape before turning on the unit. After servicing, be sure to remove the adhesive tape.



● Rear view

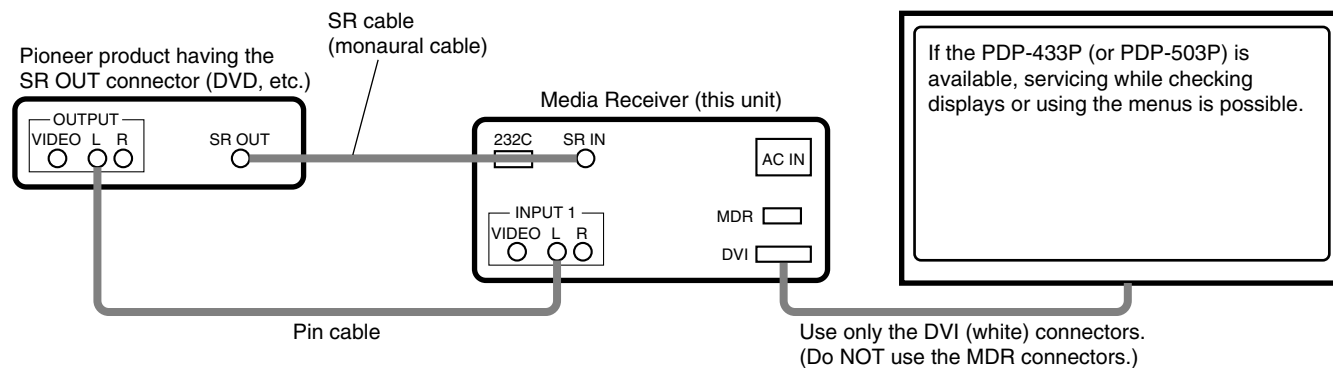
6.6 SERVICING USING ONLY THE MEDIA RECEIVER

For servicing of the PDP-434HD and PDP-504HD-series Plasma Display using only the Media Receiver, the following two methods can be used:

● Remote controlling using SR connections

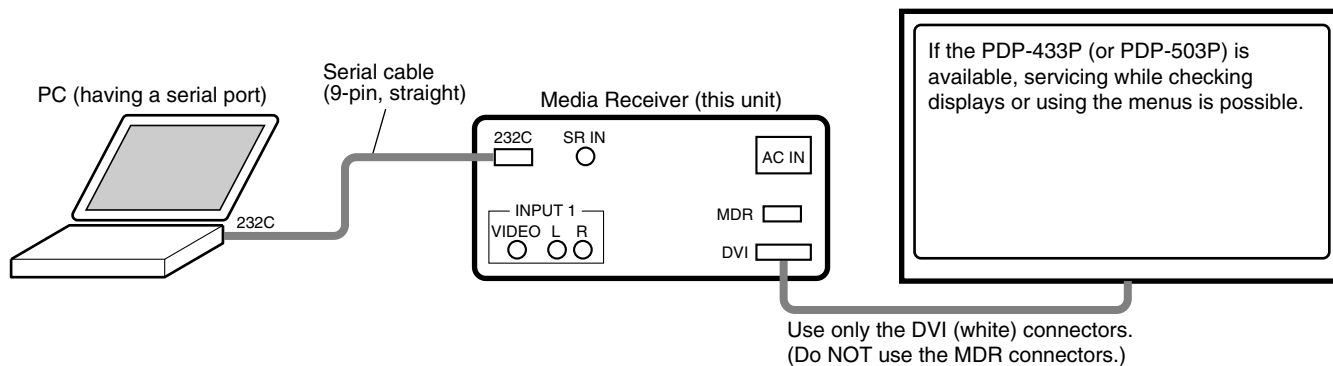
About connections

- Connect the SR OUT connector of a Pioneer product having that connector (a DVD in the following example) and the SR IN connector of the Media Receiver, using the SR cable. As the remote control sensor is not provided with the Media Receiver, this connection is required for using the remote control unit if the panel is not available. In this case, aim the remote control unit at the remote control sensor of the device (DVD in this case).
- Connect either the audio or the video output of the device (DVD in the example) and the corresponding audio or video input of the Media Receiver, using a cable with phono plugs. This connection is required in order to use ground in common with the SR cable, because with the SR cable connection the ground connection for signal reference is not available. In the example, the audio L channel is used, but the audio R channel or video can be used instead.
- If the plasma display for a previous model, such as the PDP-433P or PDP-503P, is available, servicing while checking displays or using the menus is possible. For this, connect only the DVI connectors (white) of the Media Receiver and the plasma display. The MDR connector of the Media Receiver must not be used, even though it has the same shape and number of pins, because signals assigned to the connectors differ. Using the MDR connector may damage the unit.



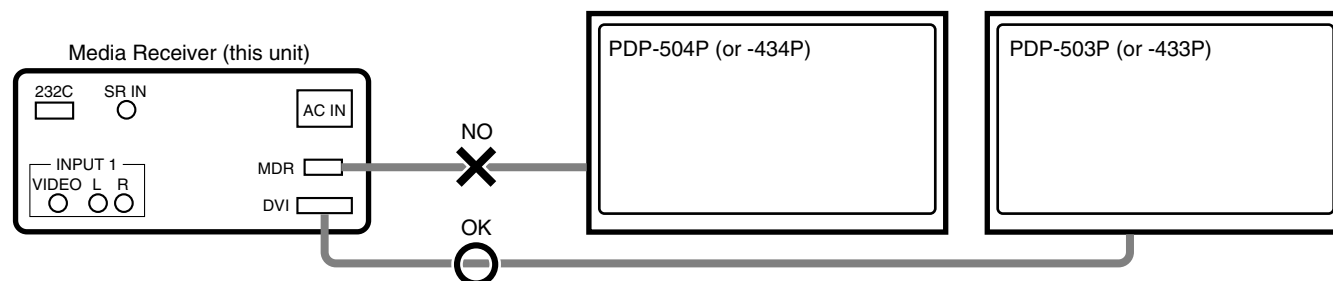
● RS-232C control using a PC

As the SR+ system is selected at shipment, to use RS-232C control, RS-232C must be selected beforehand using the remote control unit and by making the above connections. For details, see "6.3. USING RS-232C COMMANDS." For connection with the PC, use a straight cable.



● Note on connection

If the MDR connector of the PDP-434HD or -504HD-series is used, it is considered that the PDP-434P (or -504P) is connected, and the Media Receiver operates on such precondition, **which may result in a failure of the Media Receiver. Be sure not to connect to the MDR connector.** (Do NOT use the MDR connector when servicing the Media Receiver alone.)



6.7 SERVICE FACTORY MODE

To operate in Service Factory mode, use the supplied remote control unit.

■ Operation in Service Factory mode

● Functions whose settings are set to OFF

The settings for the following functions are set to OFF when Service Factory mode is entered (including when the "FAY" command is received):

- Two-screen operations (input function set on the main side is selected)
- P ZOOM
- STILL
- Detection of the TRAP switch (The log in the EEPROM is retained.)

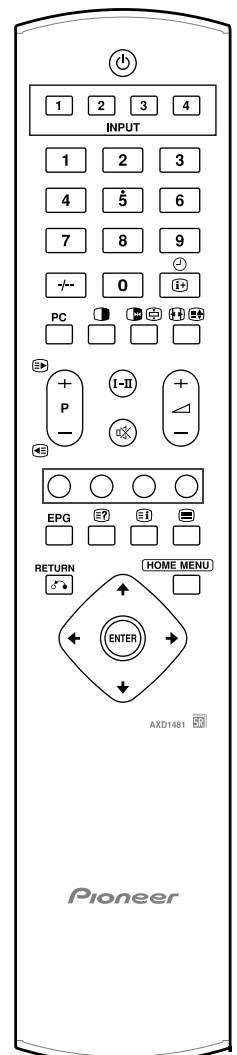
● User data

User data will be treated as follows:

- User data on picture- and audio-quality adjustments are not reflected (data stored in memory will be retained).
- Data on screen position are reset to the default values (data stored in memory will be retained).

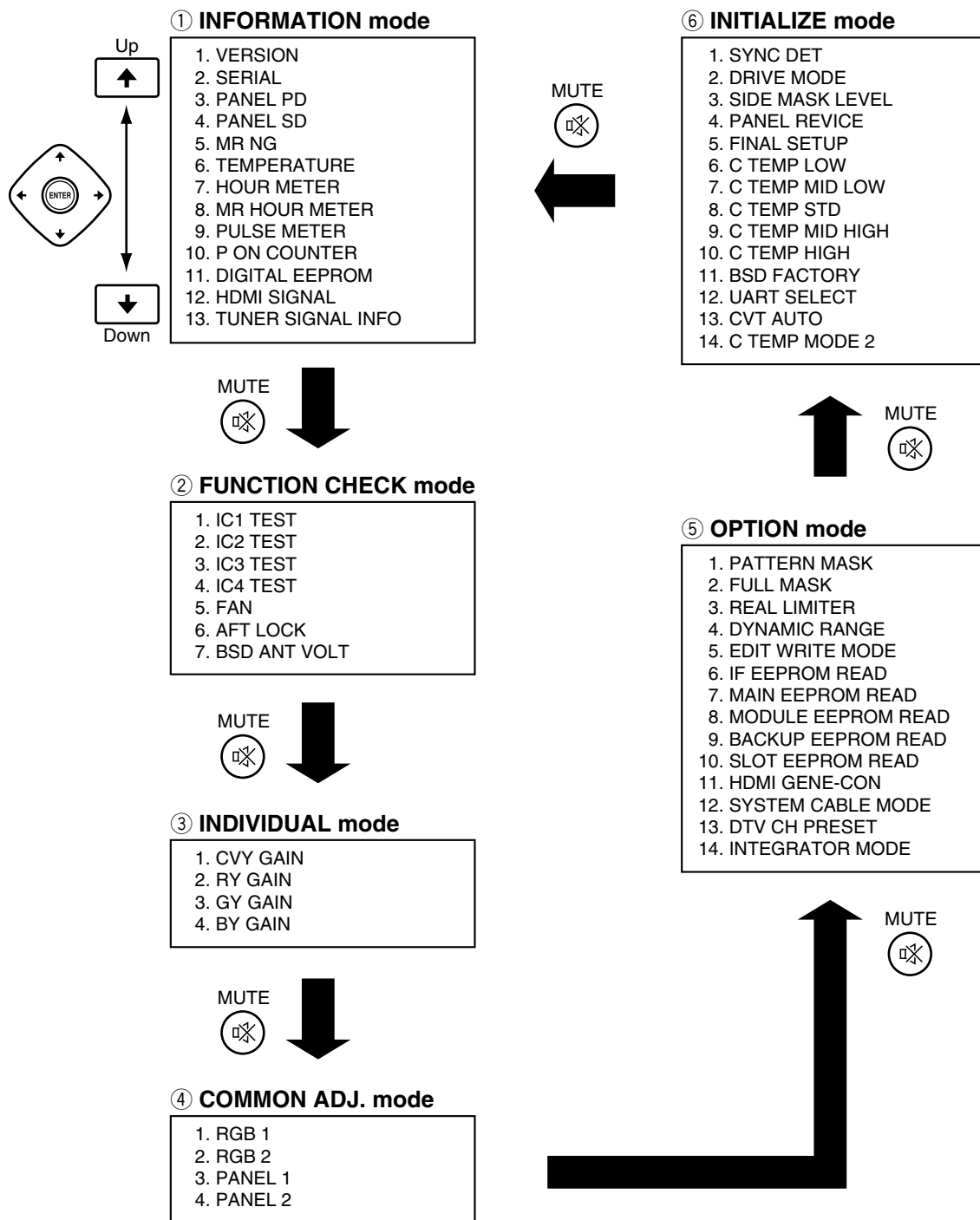
■ Remote control codes in Service Factory mode

SR Function	Main Function	Remarks
Muting	Switching the main items	Shifting to the next main item
DOWN	Switching the subtitled items	Shifting downward to the next subtitled item
UP	Switching the subtitled items	Shifting upward to the next upper layer
LEFT	Increasing the adjustment value	Increasing the adjustment value
RIGHT	Decreasing the adjustment value	Decreasing the adjustment value
SET	Switching layers	Shifting downward or upward to the next lower or upper layer
INPUT	Selecting input	Shifting the input to the next function
INPUTxx	Selecting input	Switching the input to xx
CH+	Increasing the channel number	Advancing a preset channel (effective when Function is set to TV)
CH-	Decreasing the channel number	Turning a preset channel backward (effective when Function is set to TV)
Numeric keys	Function: TV	Function: TV (previously selected channel number is selected)
BS numeric keys	Function: BS	Function: BS (previously selected channel number is selected)
POWER	Power OFF	Turning the power off
FACTORY	Factory OFF	Turning Service Factory mode off
MENU	Menu ON	Turning Service Factory mode off and Menu mode on

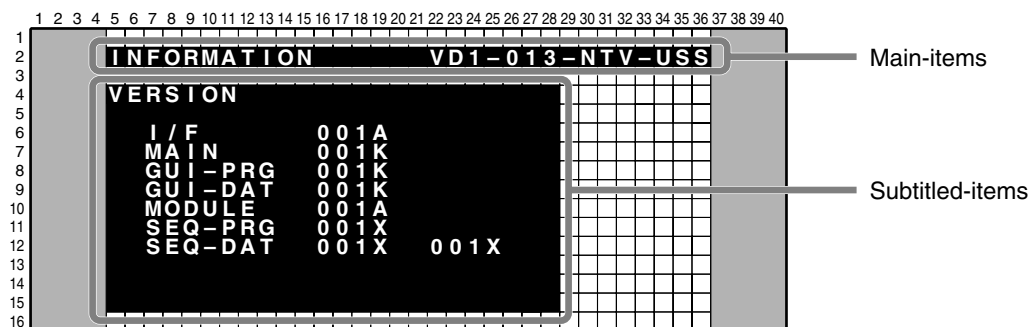


AXD1481

Changes of the Service Factory menus

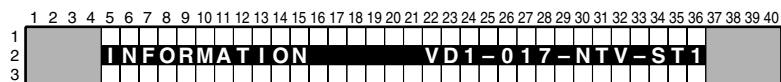


■ Indications in Service Factory mode



■ Main-item indications

Four parameters are displayed:



1 Input function

Input Functions	On-Screen Display
INPUT 1	VD1
Terrestrial wave	AIR
CS-DIGITAL	CSD
BS-DIGITAL	BSD

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input/ S-connector input	NTV
BLACK/WHITE		BWV
Y / CB / CR		CBR
Y / PB / PR		PBR
RGB		RGB
Digital video signal		DIG

4 Option (Destination, etc.)

Options	On-Screen Display
HD system in Europe	EHS

● SIG-Mode Table

The signal mode is displayed in three characters:

First character: Resolution of the input signal (numerics for the video signals, and alphabets for the PC signals)

Second character: Grouping of the V frequencies

SIG-Mode table for video signals (resolutions and V frequencies)

SIG-Mode	Signal Type	Vertical Frequency fv (Hz)	Horizontal Frequency fh (kHz)
13*	SDTV • 525i	60.000	15.750
21*	SDTV • 625i	50.000	15.625
33*	SDTV • 525p	60.000	31.500
41*	HDTV • 1125i	50.000	28.125
43*		60.000	33.750
51*	SDTV • 625p	50.000	31.250
61*	HDTV • 750p	50.000	37.500
63*		60.000	45.000

SIG-Mode table for PC signals (resolutions and V frequencies)

SIG-Mode	Signal Type	Vertical Frequency fv (Hz)	Horizontal Frequency fh (kHz)
A2*	720 × 400	56.000	24.825
A5*		70.087	31.469
A8*		85.050	37.861
B3*	640 × 480	59.940	31.469
B4*		66.666	35.000
B6*		72.809	37.861
B7*		75.000	37.500
B8*		85.000	43.300
C3*	852 × 480	60.000	31.680
D2*	800 × 600	56.250	35.1556
D3*		60.317	37.879
D6*		72.188	48.077
D7*		75.000	46.875
D8*		85.061	53.674
E7*	832 × 624	74.550	49.725
F3*	1024 × 768	60.004	48.363
F5*		70.069	56.476
F7*		75.029	60.023
F8*		84.997	68.677
G2*	1280 × 768	56.250	45.113
G3*		59.833	47.986
G5*		70.000	56.137

2nd Character	Reference V Frequency	Remarks
–	–	No signal
1	50	
2	56	
3	60	
4	66	
5	70	
6	For interpolation of 72-Hz area	For distinguishing between 70-Hz or 75-Hz area
7	75	
8	85	
9 (spare)	–	
?	–	Out of range

Third character: Selection of the screen size by the user is displayed.
 (○: available, ×: not available)

3rd Character	Description on GUI	VIDEO	PC	Remarks
0	DOT BY DOT	×	○	
1	4 : 3	○	○	
2	FULL (FULL1)	○	○	
3	ZOOM	○	×	
4	CINEMA	○	×	
5	WIDE	○	×	
6	FULL 14 : 9	○	×	
7	CINEMA 14 : 9	○	×	
8	FULL2	○	○	HDTV1035i
9	OVERSCAN	○	×	

① INFORMATION mode

● Operation items

No.	Function / Display	Content
1	VERSION (1)	The flash memory versions for each device are displayed. (common part)
2	VERSION (2)	The flash memory versions for each device are displayed. (individual part)
3	SERIAL	For displaying the serial number of the product (not used)
4	PANEL PD	Power-down generated on the panel side and its time of occurrence are displayed.
5	PANEL SD	Shutdown generated on the panel side and its time of occurrence are displayed.
6	MR NG	Power-down and/or shutdown generated on the Media Receiver side and their/its time of occurrence are displayed.
7	TEMPERATURE	Information on temperature is displayed.
8	HOUR METER	Cumulative power-on time to the panel is displayed.
9	MR HOUR METER	Cumulative power-on time to the Media Receiver is displayed.
10	PULSE METER	The pulse meter value on the panel side is displayed.
11	P ON COUNTER	The number of times the power to the panel was turned on is displayed.
12	DIGITAL EEPROM	The status of the backup data for the module microcomputer is displayed.
13	HDMI SIGNAL INFO.	The file information of HDMI series are displayed.
14	TUNER SIGNAL INFO.	The radio-wave conditions input to the GCR and IC 1 are displayed.

1. VERSION (1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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2																																							
3																																							
4																																							
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11																																							
12																																							
13																																							
14																																							
15																																							
16																																							

The flash memory versions for each device are displayed.

Flash memory of Device	On-Screen Display
User IF microcomputer (MR: IC8702)	I / F
Main microcomputer (MR: IC7207)	MAIN
Program for IC 3 (MR: IC7101)	GUI-PRG
GUI data for IC 3 (MR: IC7101)	GUI-DAT
Module microcomputer (for the PDP)	MODULE
Program for IC 4 (for the PDP)	SEQ-PRG
Sequence data for IC 4 (for the PDP)	SEQ-DAT

2. VERSION (2)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
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15																																							
16																																							

European HD

Device	Name Display	Version Display	Remarks
PC-CARD	CARD	8 character	
TELTEXT	TEXT	60 character	

4. PANEL PD

[illegible]

Power-down information only on the panel side is displayed.

- **Panel power-down information**

No.	Type of Power-down	On-Screen Display	No.	Type of Power-down	On-Screen Display
1	No corresponding item	- - - - -	7	Power-down of the Y-SUS system	Y-SUS
2	Power-down of the main power supply system	POWER	8	Power-down of the address system	ADRS
3	Power-down of the scanning system	SCAN	9	Power-down of the X-DRIVE circuitry	X-DRV
4	Power-down in the path between the scanning system and 5-V power supply	SCN-5V	A	Power-down of the X-DC/DC converter	X-DCDC
5	Power-down of the Y-Drive system	Y-DRV	B	Power-down of the X-SUS system	X-SUS
6	Power-down of the Y-DC/DC converter	Y-DCDC	C	Power-down of the driving IC power supply system	D-DCDC

5. PANEL SD

```

1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
2  INFORMATION                                VD1-013-NTV-ST1
3
4  PANEL SD
5  MAIN SUB
6
7  1 AUDIO --- 00103H51M
8  2 MD-IIC VOLIC 00075H42M
9  3 TEMP1 ----- 00050H50M
10 4
11 5 H M
12 6 H M
13 7 H M
14 8 H M
15
16

```

The shutdown log only on the panel side is displayed.

- **Panel shutdown information**

No.	Type of Shutdown	On-Screen Display (MAIN)	Remarks
1	Abnormality in IC 4 communication	IC4	
2	Abnormality in module microcomputer IIC communication	MD-IIC	Subcategories exist. (EEPROM4K : IC5206, EROM2K : IC402, VOLIC : IC3502)
3	Moisture-condensation detection	DEW	
4	Abnormality in panel temperature	TEMP1	
5	Short-circuiting of the speakers	AUDIO	
6	Abnormality in module microcomputer communication	MODULE	

6. MR NG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
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Information on power-down and shutdown of the Media Receiver side is displayed.

• Media Receiver NG information

No.	Type of Failure	On-Screen Display (MAIN)	Remarks
1	Power-down of the MR power supply	MR-PWR	
2	Abnormality in module microcomputer communication	MODULE	
3	Abnormality in 3-wire serial communication of the main microcomputer	MA-SRL	Subcategories exist.
4	Abnormality in main microcomputer IIC communication	MA-IIC	Subcategories exist.
5	Abnormality in main microcomputer communication	MAIN	
6	Abnormality in temperature of the Media Receiver	TEMP2	
7	Fan stopped.	FAN	
8	Abnormality in communication of the digital tuner	BS-D	Subcategories exist.
9	Abnormality in the ASIC power supply on the MR side	M-DCDC	

• Subcategory information

Type of Shutdown	Subcategory	Remarks
MA-SRL	IF microcomputer (IC8702), IC2 (IC7004), IC3 (IC7101)	
MA-IIC	MA-EEP (IC7205), IC1-M (IC6107), IC1-S (IC6255), HDMI1 (IC6801), HDMI2 (IC6881)*2, AD-M (IC6402), AD-S (IC6602), IC6 (IC6951), CCD (IC8903)*2, FE1 (U7501), FE2 (U7502)*2, AV-SW1 (IC8002), AV-SW2 (IC8005), TX-COM (IC8904)*3, MPX (IC7502)*3	*2 : U.S. model only *3 : Europe model and General area model
BS-D or DTV (Japan or U.S. only)	PS/RST	No power, or reset status continued
	RETRY	The signal 0x02 (ready) has not been received.
	DEVICE	Abnormality in BSD status
CARD	COMM	
	DEVICE	
	RESET	

7. TEMPERATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
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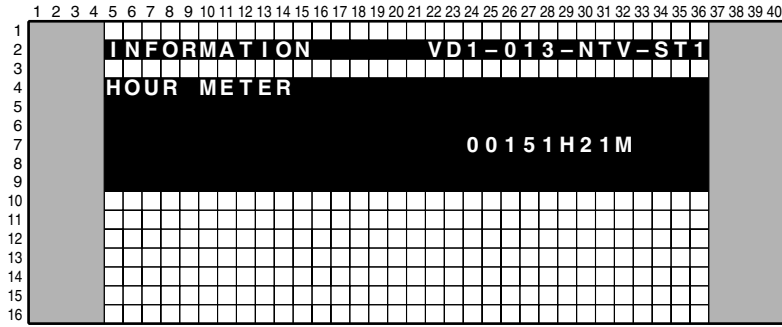
TEMP1: The value read from the temperature sensor built into the panel is displayed in the range of 000-255.

Note: Refer to the service manual of the panel.

TEMP2: The value read from the temperature sensor built into the Media Receiver is displayed in the range of 000-255. For reference, the approximate value for 60°C is 169 and for 35°C is 131.

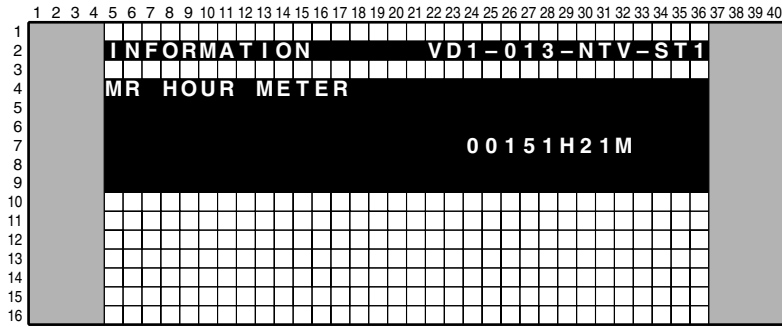
FAN: The value of the Fan output is displayed. At shipment, the output is controlled in 2 steps, and the value for strong output is set to about 131, and the value for weak output is set to about 93.

8. HOUR METER



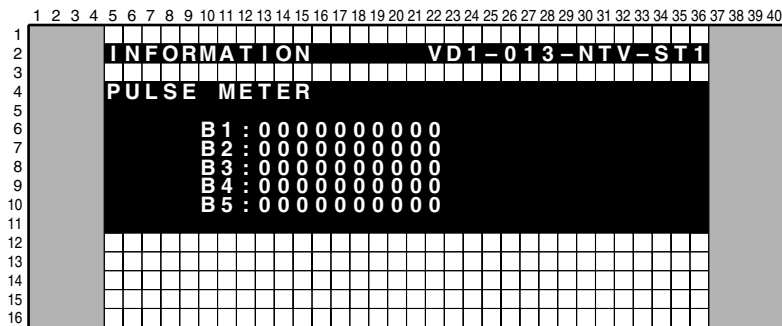
The cumulative power-on time of the panel is displayed.

9. MR HOUR METER



The cumulative power-on time of the Media Receiver is displayed.

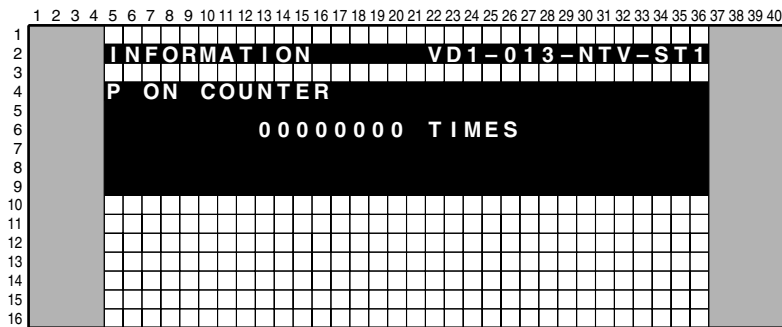
10. PULSE METER



The cumulative number of pulses of the panel is displayed.

Note : Dividing screen into sixteen times sixteen and counting five different locations on a screen.
Each item, it's counted total 3840 pixels (for 50 inch) or 3072 pixels (for 43 inch) discharging.
(1280/16 x 768/16 = 3840, 1024/16 x 768/16 = 3072)
The first digit numbr is 1M pulses.

11. P ON COUNTER

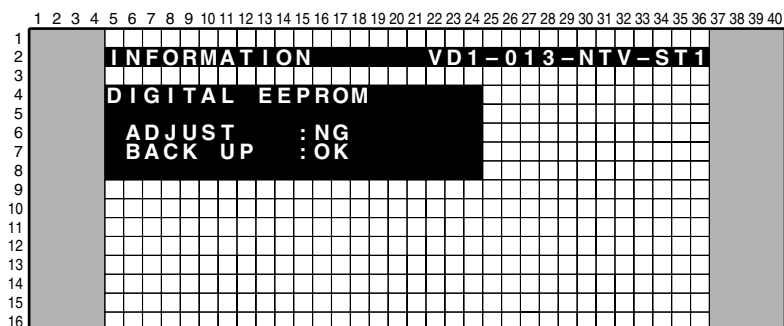


The cumulative number of times the panel was turned on is displayed.

12. DIGITAL EEPROM

When the DIGITAL Assy of the PDP is to be replaced, the adjustment values in it can be temporarily stored in the ROM then be written on the new Assy after replacement. (This function is not supported for initially produced products. It is planned for this function to be supported as soon as it becomes possible.)

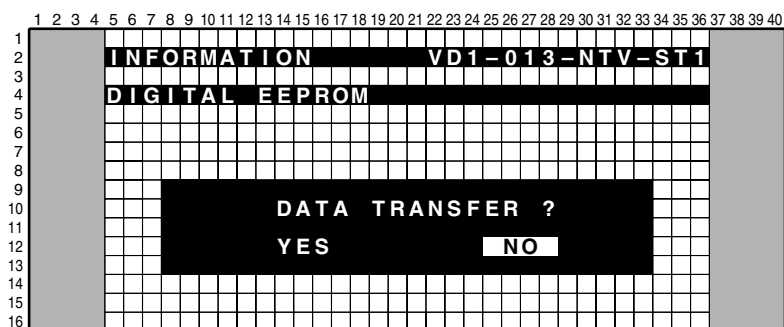
Whether adjustment has been made on the DIGITAL Assy of the PDP or not (i.e., in the state of a new service part), and whether the data on any adjustment values are retained in the backup ROM or not are displayed.



• Downloading the data from the backup ROM

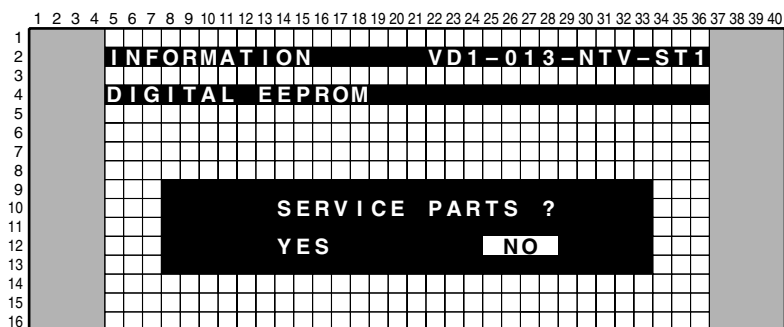
(This must be performed after the DIGITAL Assy is replaced.)

To download the data from the backup ROM, press the ENTER key while the above screen is displayed. The display changes as shown below. Move the cursor to YES then press the ENTER key. The data in the backup ROM are downloaded into the new Assy.



• Clearing the data in the ROM of the DIGITAL Assy

The display below is automatically displayed after either YES or NO is selected on the display shown above. Move the cursor to YES then press the ENTER key. Then all data on adjustment values in the ROM of the DIGITAL Assy are cleared.



13. HDMI SIGNAL INFO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
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15																																							
16																																							

Technical examination display

(Reading status registers in HDMI receiver and displaying them by HEX value.)

14. TUNER SIGNAL INFO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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For technical discussion

② FUNCTION CHECK

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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3																																							
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No last memory in this menu

No.	Display	Detail	Remarks	232C Command
1	IC1 TEST		For CMX	
2	IC2 TEST		For CMX	
3	IC3 TEST		For CMX	
4	IC4 TEST		For CMX	
5	FAN <=>	: MINI ⇔ CONT ⇔ MAX		*1
6	AFT <=>	UNLOCKED ⇔ LOCKED	For Factory use	ALN/ALY
7	BSD ANT VOLT <=>	15V ⇔ 11V ⇔ 0	Only domestic model	BVH/BVM/BVL
8	AUTO PRESET CHECK <=>	NO ⇔ YES	Only Europe HD and for Factory use	None

2.1 FAN

Controls FAN speed by force. (MIN : STOP, CNT : Low Speed, MAX : High)

Temp sensor is working only displaying data value in service factory mode.

After getting off service factory mode, this function is set to normal automatically.

2.2 AFT LOCK

For production line use only

Stop AFT tuner received function and receive a center frequency.

After turning off a unit (including stand-by mode), this setting is set normal (AFT function) automatically.

It's performed to two tuner and DTV tuner to U.S. model.

2.3 AUTO PRESET CHECK

For production line use only

Select No.	Display	Function	Remarks
1 (Default)	NO		Performing this function when shifting from "NO" to "YES".
7	YES	Perform AUTO PRESET function to specific frequency to reduce AUTO RESET time at production line.	

⑤ OPTION mode

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
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No.	Function/Display	Content	Corresponding RS-232C Command
1	PATTERN MASK (+)	Selecting the pattern mask of IC4	
2	FULL MASK (+)	Selecting the raster mask of IC4	
3	PEAK LIMITER	ON ⇔ FFF	PAN/PAF
4	DYNAMIC RANGE	ON ⇔ FFF	DYY/DYN
5	EDID WRITE MODE	DISABLE ⇔ ENABLE	EWY/EWN
9	EU CH PRESET	FACTORY ⇔ USER	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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The mask frequency can be cyclically changed (see the table below) by pressing the left or right cursor key. The mask pattern can be cyclically changed by pressing the up or down cursor key. Approximately 2 seconds after either the up or down cursor key is pressed, the mask screen will appear.

• Frequency selection while the mask is displayed


No.	Function/Display	Content	Corresponding RS-232C Command
0	V50	Video 50-Hz sequence	F50
1	V60 (initial value)	Video 60-Hz sequence	F60
2	P60	PC 60-Hz sequence	F61
3	P70	PC 70-Hz sequence	F70
4	V72	Video 72-Hz sequence	F72
5	V75	Video 75-Hz sequence	F75

⑥ INITIALIZE mode

(For managing switching of the initial settings and destination setting)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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No.	Function/Display	Content
1	SYNC DET (+)	For setting the parameter for sync detection of IC1/GCR
2	DRIVE MODE (+)	(Not used)
3	SIDE MASK LEV (+)	(Not used)
4	PANEL REVICE (+)	(Not used)
5	FINAL SETUP (+)	
6	C TEMP LOW (+)	
7	C TEMP MID LOW (+)	
8	C TEMP STD (+)	
9	C TEMP MID HIGH (+)	
10	C TEMP HIGH (+)	
11	BSD FACTORY (+)	(Not used)
12	UART SELECT <=>	1200-232C ⇔ ••• ⇔ 38400-232C ⇔ 9600-SR+
13	CVT AUTO <=>	DISABLE ⇔ ENABLE (For Factory use)

- When there is a modification log, if the “” key is held pressed for at least 3 seconds while the above display is displayed, the modification log will be cleared.

• UART SELECT

Option No.	Function / Display	Operation / Control	Remarks	Corresponding RS-232C Command
1 (initial setting)	9600-SR+	To set to SR+ (9600 BPS)	For switching external communication between RS-232C and SR+	BR0
2	1200-232C	To set to RS-232C (1200 BPS)		BR1
3	2400-232C	To set to RS-232C (2400 BPS)		BR2
4	4800-232C	To set to RS-232C (4800 BPS)		BR3
5	9600-232C	To set to RS-232C (9600 BPS)		BR4
6	19200-232C	To set to RS-232C (19200 BPS)		BR5
7	38400-232C	To set to RS-232C (38400 BPS)		BR6

Tips: How to change the SR+/RS-232C setting without entering Service Factory mode
Refer to the section "6.3 USING RS-232C COMMANDS".

6.8 LIST OF RS-232C COMMANDS

RS-232C commands can be used in Service Factory mode.

Before using RS-232C commands, it is necessary to change the factory presetting. See "6.3. USING RS-232C COMMANDS."

Command	Operation	Remarks
A		
ABL	Adjusting power consumption	
B		
BCP	Transmitting the backup data to the DIGITAL Assy	
BR0	UART setting: SR+ (9600 BPS)	Any RS-232C command to the Media Receiver becomes disabled as soon as this command is issued.
BR1	UART setting: RS-232C (1200 BPS)	
BR2	UART setting: RS-232C (2400 BPS)	
BR3	UART setting: RS-232C (4800 BPS)	
BR4	UART setting: RS-232C (9600 BPS)	
BR5	UART setting: RS-232C (19200 BPS)	
BR6	UART setting: RS-232C (38400 BPS)	
BSL	Adjusting side mask B	
BVH	Setting the power supply for the BSD antenna to 15 V	
BVL	Setting the power supply for the BSD antenna to 11 V	
BVM	Setting the power supply for the BSD antenna to 0 V	
BYG	BY GAIN	
C		
CNG	Clearing MR NG information	
CPC	Clearing the power-on counter	
CPD	Clearing power-down information	
CPM	Clearing the pulse meter	
CSD	Clearing shutdown information	
D		
DIY	Turning on the on-screen display	While the DIY command is in force, the duration of on-screen display is unlimited.
DIN	Turning off the on-screen display	On-screen display is prohibited.
DOF	Erasing the currently displayed indications	If another command is received by the Media Receiver, an on-screen display is displayed.
DRF	Turning off the power for the drive system	
DRN	Turning on the power for the drive system	
DW*	Decreasing the adjustment value by *	*: 1-9, 0 (0 means 10), or F (making the adjustment value the minimum)
E		
EWN	Prohibiting writing of EDID data	
EWY	Permitting writing of EDID data	
F		
F50	Video 50-Hz sequence	
F60	Video 60-Hz sequence	
F61	PC 60-Hz sequence	
F70	PC 70-Hz sequence	
F72	Video 72-Hz sequence	
F75	Video 75-Hz sequence	
FAJ	Determining the adjustment values for the unit	
FAN	Turning Service Factory mode off	The GUI equivalent to that usually displayed when the power is turned on is displayed. The GET-group commands are effective at any time, including during Standby mode.
G		
GAJ	Obtaining the adjustment values for the panel	
GMM	Switching the gamma levels	Setting value: 000-007
GNG	Obtaining NG data of the MR	
GNM	Obtaining the serial No. of the MR	
GPC	Obtaining the P ON COUNTER value	
GPD	Obtaining power-down information	
GPR	Obtaining the PANEL REVISE data	
GPM	Obtaining the PULSE METER data	
GPW	Obtaining the PANEL W/B data	
GS1	Obtaining the version data for each device	
GS2	Obtaining data on various operations	
GSD	Obtaining shutdown information	
GSL	Adjusting side mask G	

Command	Operation	Remarks
I		
IN1	Input selection: Input 1	
IN2	Input selection: Input 2	
IN3	Input selection: Input 3	
IN4	Input selection: Input 4	
IN5	Input selection: Input 5	
INA	Selection of the tuner for terrestrial analog signals (Antenna A)	
INB	Selection of the tuner for terrestrial analog signals (Antenna B)	
INC	Selection of the tuner for terrestrial digital signals	
IND	Selection of the tuner for satellite digital signals (BS)	
INE	Selection of the tuner for satellite digital signals (CS1)	
INF	Selection of the tuner for satellite digital signals (CS2)	
ING	Selection of iLink input functions	
INF	SD card	
M		
M00	Mask mode: OFF	
M01	White: 0-100%	
M02	Aging mask	
M03	Aging mask (detection of still picture: OFF)	
M10	RAMP slant 1	
M11	RAMP slant 4	
M12	RAMP slant 1 shifting	
M13	RAMP slant 4 shifting	
M14	V RAMP	
M15	H/V RAMP	
M1G	IC1 MAIN GAIN	
M1O	IC1 MAIN OFFSET	
M20	WINDOW-Low: 102 / High: 870	
M21	WINDOW-Low: 102 / High: 1023	
M22	WINDOW-Low: 0 / High: 1023	
M23	WINDOW-High: 1023 (CENTER)	
M24	WINDOW-PEAK WINDOW	Area 1.25%
M25	WINDOW-1/7 vertical window	
M26	WINDOW-magenta/green stripe	
M27	WINDOW-green/magenta stripe	
M28	Window (black & white [1 × 8], checkered pattern [for EMG check])	
M29	Window (for W/B adjustment, magenta, yellow)	
M2E	Wiper to prevent phosphor burn	
M30	COLOR BAR	
M31	Slanted lines	
M51	Raster-white	
M52	Raster-red	
M53	Raster-green	
M54	Raster-blue	
M55	Raster-black	
M56	Raster-cyan	
M57	Raster-magenta	
M58	Raster-yellow	
M59	Raster-cyan 274	
M60	Raster-50 flesh color	
M61	Raster-50 light purple	
M62	Raster-50 sky blue	
M63	Raster-red 779	
M64	Raster-cyan 218	
M65	Raster-cyan 448	
M66	Raster-43 flesh color	
M67	Raster-red 640	
M68	Raster-magenta 98	
M69	Raster-43 sky blue 1	
M70	Raster-43 sky blue 2	
M71	Raster-43 light purple	
M72	Raster-blue 960	
M73	Raster-gray 511 (spare)	
M74	Raster-gray 511 (spare)	

Command	Operation	Remarks
M		
MRG	AD MAIN R GAIN	
MRO	AD MAIN R OFFSET	
MGG	AD MAIN G GAIN	
MGO	AD MAIN G OFFSET	
MBG	AD MAIN B GAIN	
MBO	AD MAIN B OFFSET	
P		
PBH	Panel W/B B-HIGH adjustment	
PBL	Panel W/B B-LOW adjustment	
PGH	Panel W/B G-HIGH adjustment	
PGL	Panel W/B G-LOW adjustment	
POF	Turning the power OFF	
PRH	Panel W/B R-HIGH adjustment	
PRL	Panel W/B R-LOW adjustment	
R		
RYG	RY GAIN	
RSL	Adjustment of side mask R	
S		
S1G	IC1 SUB GAIN	
S1O	IC1 SUB OFFSET	
SBG	AD SUB B GAIN	
SBO	AD SUB B OFFSET	
SFI	Initialization of the full mask table	
SGG	AD SUB G GAIN	
SGO	AD SUB G OFFSET	
SRG	AD SUB R GAIN	
SRO	AD SUB R OFFSET	
T		
TSY	Enabling the TRAP switch	The command is effective even during Standby mode.
U		
UP*	Increasing the adjustment value by *	*: 1-9, 0 (0 means 10), or F (making the adjustment value the maximum)
UAJ	Resetting all data in the DIGITAL Assy to those of a new service part	
V		
VOF	Offset voltage adjustment	
VSU	SUS voltage adjustment	
X		
XD1	D1 trailing-edge pulse of X-SUS	
XD2	D2 trailing-edge pulse of X-SUS	
XU1	U1 leading-edge pulse of X-SUS	
XU2	U2 leading-edge pulse of X-SUS	
Y		
YD1	D1 trailing-edge pulse of Y-SUS	
YD2	D2 trailing-edge pulse of Y-SUS	
YD3	D3 trailing-edge pulse of Y-SUS	
YD4	D4 trailing-edge pulse of Y-SUS	
YU1	U1 leading-edge pulse of Y-SUS	
YU2	U2 leading-edge pulse of Y-SUS	

6.9 OUTLINE OF COMMANDS

■ GET Commands

GS1: Returning information on the model and the version of the software

Order	Data	Size
1	Data on the display	3 bytes
2	Version of the module microcomputer	4 bytes
3	Version of the IC4-MANTA	4 bytes
4	Sequence version (50VIDEO)	4 bytes
5	Sequence version (50PC)	4 bytes
6	Sequence version (43VIDEO)	4 bytes
7	Sequence version (43PC)	4 bytes
8	Version of the IF microcomputer	4 bytes
9	Version of the main microcomputer	4 bytes
10	Version of the IC3-MANTA	4 bytes
11	Version of the OSD	4 bytes
12	Version of the DTV microcomputer (only for models for North America)	4 bytes
13	Version of the CC microcomputer (only for models for North America)	4 bytes
14	Version of the TEXT microcomputer (only for models for Europe)	4 bytes

Breakdown of the data on the display

Data	Model
HD5	PDP-504HD series
HD4	PDP-434HD series

GPM: Returning the data of the PDP pulse meter

Order	Data	Size
1	Pulse meter (Block area 1)	10 bytes
2	Pulse meter (Block area 2)	10 bytes
3	Pulse meter (Block area 3)	10 bytes
4	Pulse meter (Block area 4)	10 bytes
5	Pulse meter (Block area 5)	10 bytes

Note: Refer to the service manual of the panel.

GPC: Returning the cumulative number of times the power to the PDP was turned on

Order	Data	Size
1	Power-on counter	8 bytes

• Commands for clearing the logs

Parameter	Corresponding RS-232C Command
PD INFO	CPD
SD INFO	CSD
NG INFO	CNG
HOURLY METER	CHM
MR HOURLY METER (Only for the system model)	CHR
PULSE METER	CPM
P ON COUNTER	CPC

GPD: Returning the power-down data (log) of the PDP

Order	Data	Size	Order	Data	Size
1	Latest "1st PD" data	1 byte	17	Fifth latest "1st PD" data	1 byte
2	Latest "2nd PD" data	1 byte	18	Fifth latest "2nd PD" data	1 byte
3	Data of hour meter for the latest PD	7 bytes	19	Data of hour meter for the fifth latest PD	7 bytes
4	Data on temperature for the latest PD (TEMP1)	3 bytes	20	Data on temperature for the fifth latest PD (TEMP1)	3 bytes
5	Second latest "1st PD" data	1 byte	21	Sixth latest "1st PD" data	1 byte
6	Second latest "2nd PD" data	1 byte	22	Sixth latest "2nd PD" data	1 byte
7	Data of hour meter for the second latest PD	7 bytes	23	Data of hour meter for the sixth latest PD	7 bytes
8	Data on temperature for the second latest PD (TEMP1)	3 bytes	24	Data on temperature for the sixth latest PD (TEMP1)	3 bytes
9	Third latest "1st PD" data	1 byte	25	Seventh latest "1st PD" data	1 byte
10	Third latest "2nd PD" data	1 byte	26	Seventh latest "2nd PD" data	1 byte
11	Data of hour meter for the third latest PD	7 bytes	27	Data of hour meter for the seventh latest PD	7 bytes
12	Data on temperature for the third latest PD (TEMP1)	3 bytes	28	Data on temperature for the seventh latest PD (TEMP1)	3 bytes
13	Fourth latest "1st PD" data	1 byte	29	Eighth latest "1st PD" data	1 byte
14	Fourth latest "2nd PD" data	1 byte	30	Eighth latest "2nd PD" data	1 byte
15	Data of hour meter for the fourth latest PD	7 bytes	31	Data of hour meter for the eighth latest PD	7 bytes
16	Data on temperature for the fourth latest PD (TEMP1)	3 bytes	32	Data on temperature for the eighth latest PD (TEMP1)	3 bytes

• Details on "1st/2nd PD" data

Data	Power-down Point
0	No power-down
1	Not used (for MR-POWER)
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D, E	Spare
F	Power-down point not identified

GSD: Returning the shutdown data (log) of the PDP

Order	Data	Size	Order	Data	Size
1	Latest SD data	1 byte	17	Fifth latest SD data	1 byte
2	Data of subcategory for the latest SD	1 byte	18	Data of subcategory for the fifth latest SD	1 byte
3	Data of hour meter for the latest SD	7 bytes	19	Data of hour meter for the fifth latest SD	7 bytes
4	Data on temperature for the latest SD (TEMP1)	3 bytes	20	Data on temperature for the fifth latest SD (TEMP1)	3 bytes
5	Second latest SD data	1 byte	21	Sixth latest SD data	1 byte
6	Data of subcategory for the second latest SD	1 byte	22	Data of subcategory for the sixth latest SD	1 byte
7	Data of hour meter for the second latest SD	7 bytes	23	Data of hour meter for the sixth latest SD	7 bytes
8	Data on temperature for the second latest SD (TEMP1)	3 bytes	24	Data on temperature for the sixth latest SD (TEMP1)	3 bytes
9	Third latest SD data	1 byte	25	Seventh latest SD data	1 byte
10	Data of subcategory for the third latest SD	1 byte	26	Data of subcategory for the seventh latest SD	1 byte
11	Data of hour meter for the third latest SD	7 bytes	27	Data of hour meter for the seventh latest SD	7 bytes
12	Data on temperature for the third latest SD (TEMP1)	3 bytes	28	Data on temperature for the seventh latest SD (TEMP1)	3 bytes
13	Fourth latest SD data	1 byte	29	Eighth latest SD data	1 byte
14	Data of subcategory for the fourth latest SD	1 byte	30	Data of subcategory for the eighth latest SD	1 byte
15	Data of hour meter for the fourth latest SD	7 bytes	31	Data of hour meter for the eighth latest SD	7 bytes
16	Data on temperature for the fourth latest SD (TEMP1)	3 bytes	32	Data on temperature for the eighth latest SD (TEMP1)	3 bytes

• Details on the shutdown data

Data	Cause of Shutdown
0	No abnormality
1	IC4 (IC5401)
2	Module microcomputer IIC
3	Abnormality in RST2 (power decrease of DC-DC converter)
4	Panel having abnormally high temperature
5	Audio failure (short-circuiting of the speakers)
6 - F	Spares

• Data on the shutdown subcategories for the module microcomputer IIC

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (4k) (IC5206)
2	EEPROM (2k) (IC4002)
3	Volume IC (IC3502)

GNG: Returning the data (logs) on power-down and shutdown of the Media Receiver

Order	Data	Size	Order	Data	Size
1	Latest NG data	1 byte	17	Fifth latest NG data	1 byte
2	Data of subcategory for the latest NG	1 byte	18	Data of subcategory for the fifth latest NG	1 byte
3	Data of MR hour meter for the latest NG	7 bytes	19	Data of MR hour meter for the fifth latest NG	7 bytes
4	Data on temperature for the latest NG (TEMP2)	3 bytes	20	Data on temperature for the fifth latest NG (TEMP2)	3 bytes
5	Second latest NG data	1 byte	21	Sixth latest NG data	1 byte
6	Data of subcategory for the second latest NG	1 byte	22	Data of subcategory for the sixth latest NG	1 byte
7	Data of MR hour meter for the second latest NG	7 bytes	23	Data of MR hour meter for the sixth latest NG	7 bytes
8	Data on temperature for the second latest NG (TEMP2)	3 bytes	24	Data on temperature for the sixth latest NG (TEMP2)	3 bytes
9	Third latest NG data	1 byte	25	Seventh latest NG data	1 byte
10	Data of subcategory for the third latest NG	1 byte	26	Data of subcategory for the seventh latest NG	1 byte
11	Data of MR hour meter for the third latest NG	7 bytes	27	Data of MR hour meter for the seventh latest NG	7 bytes
12	Data on temperature for the third latest NG (TEMP2)	3 bytes	28	Data on temperature for the seventh latest NG (TEMP2)	3 bytes
13	Fourth latest NG data	1 byte	29	Eighth latest NG data	1 byte
14	Data of subcategory for the fourth latest NG	1 byte	30	Data of subcategory for the eighth latest NG	1 byte
15	Data of MR hour meter for the fourth latest NG	7 bytes	31	Data of MR hour meter for the eighth latest NG	7 bytes
16	Data on temperature for the fourth latest NG (TEMP2)	3 bytes	32	Data on temperature for the eighth latest NG (TEMP2)	3 bytes

• Details on the NG data

Data	Cause of Shutdown
0	No abnormality
1	Power-down of the MR power supply
2	Communication failure of the module microcomputer
3	Three-wire serial communication failure of the main microcomputer
4	IIC communication failure of the main microcomputer
5	Communication failure of the main microcomputer
6	MR having abnormally high temperature
7	Fan stopped
8	Failure in the digital tuner
9	Abnormality in RST2 of the MR (power decrease of DC-DC converter)

• Data on the subcategories for failure in 3-wire serial communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	Communication failure of the IF microcomputer
2	IC2 communication failure
3	IC3 communication failure

• Data on the subcategories for failure in the digital tuner

Data	Cause of Shutdown
0	No subcategory (DTV for North America)
1	Communication failure of the BSD microcomputer (PS/RST)
2	BSD microcomputer (RETRY)
3	BSD unit (DEVICE)
4	PC CARD
5	
6	

• Data on the subcategories for failure in IIC communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (128k) (IC7205)
2	GCR (Only domestic model)
3	IC1 main (IC6107)
4	IC1 sub (IC6255)
5	AD-PLL main (IC6402)
6	AD-PLL sub (IC6602)
7	IC6 (IC6951)
8	HDMI1
9	Not used
A	7-3VIDEO SW (IC8002)
B	6-2RGB SW (IC8005)
C	Front end 1 (U7501)
D	Not used
E	Not used
F	Not used
G	Not used
H	Not used
I	NICAM-NG (IC7702)
K	TX-COM (IC8904)
L	TX-DEV (IC8904)
M	TX-MEM (IC8904 or IC9101 or IC9104)

GAJ: Returning drive-related adjustment values of the PDP

A

Order	Data	Size
1	Currently used ABL table	3 bytes
2	Upper limit of the electric power	3 bytes
3	Vsus adjustment value	3 bytes
4	Vofs adjustment value	3 bytes
5	X-SUS-U1 adjustment value (XU1)	3 bytes
6	X-SUS-U2 adjustment value (XU2)	3 bytes
7	X-SUS-D2 adjustment value (XD2)	3 bytes
8	X-SUS-D1 adjustment value (XD1)	3 bytes
9	Y-SUS-U1 adjustment value (YU1)	3 bytes
10	Y-SUS-U2 adjustment value (YU2)	3 bytes
11	Y-SUS-D1-2 adjustment value (YD2)	3 bytes
12	Y-SUS-D1-1 adjustment value (YD1)	3 bytes
13	Y-SUS-D2-2 adjustment value (YD4)	3 bytes
14	Y-SUS-D2-1 adjustment value (YD3)	3 bytes

B

Data	Table
AB1	ABL table for NTSC
AB2	ABL table for PAL
AB3	ABL table for PC

C

GPW: Returning RGB-level-related adjustment values of the PDP

Order	Data	Size
1	Panel W/B table currently used	3 bytes
2	Main contrast	4 bytes
3	Red contrast of the W/B adjustment value	4 bytes
4	Green contrast of the W/B adjustment value	4 bytes
5	Blue contrast of the W/B adjustment value	4 bytes
6	Main brightness	4 bytes
7	Red brightness of the W/B adjustment value	4 bytes
8	Green brightness of the W/B adjustment value	4 bytes
9	Blue brightness of the W/B adjustment value	4 bytes

Data	Table
PT1	ABL table for NTSC
PT2	ABL table for PAL
PT3	Reserved table

D

E

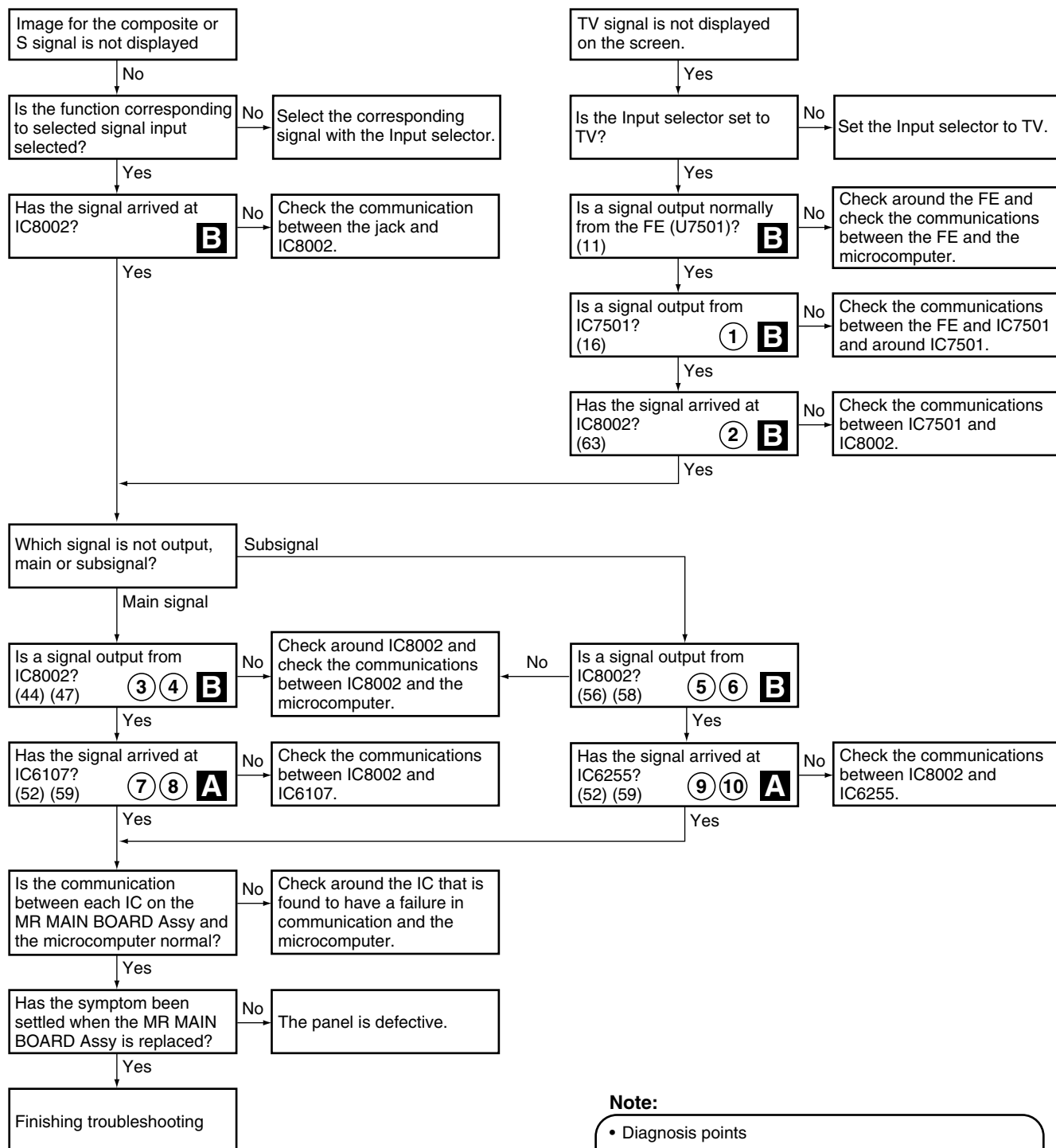
F

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TROUBLE SHOOTING

● Image for the composite or S signal is not displayed



Note:

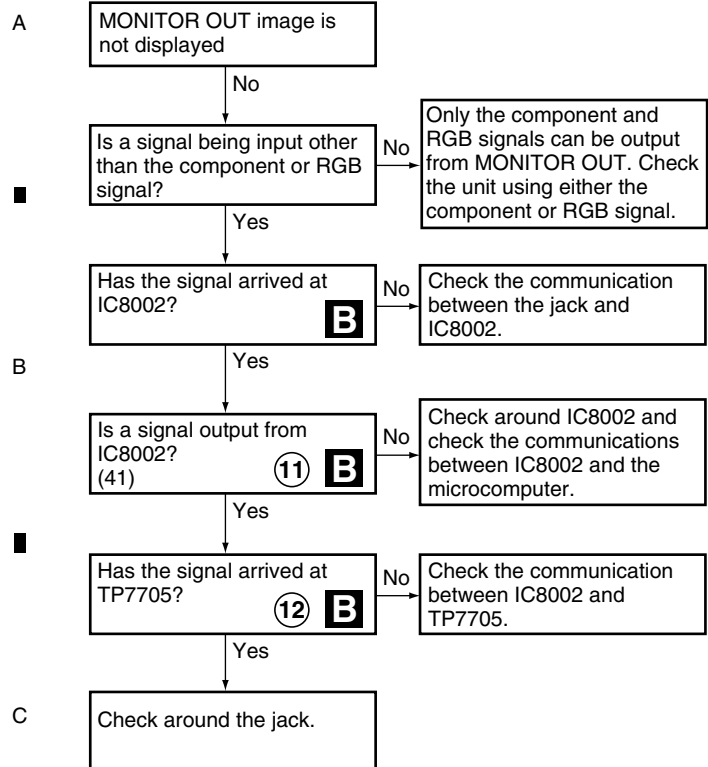
- Diagnosis points

A MR MAIN BOARD ASSY

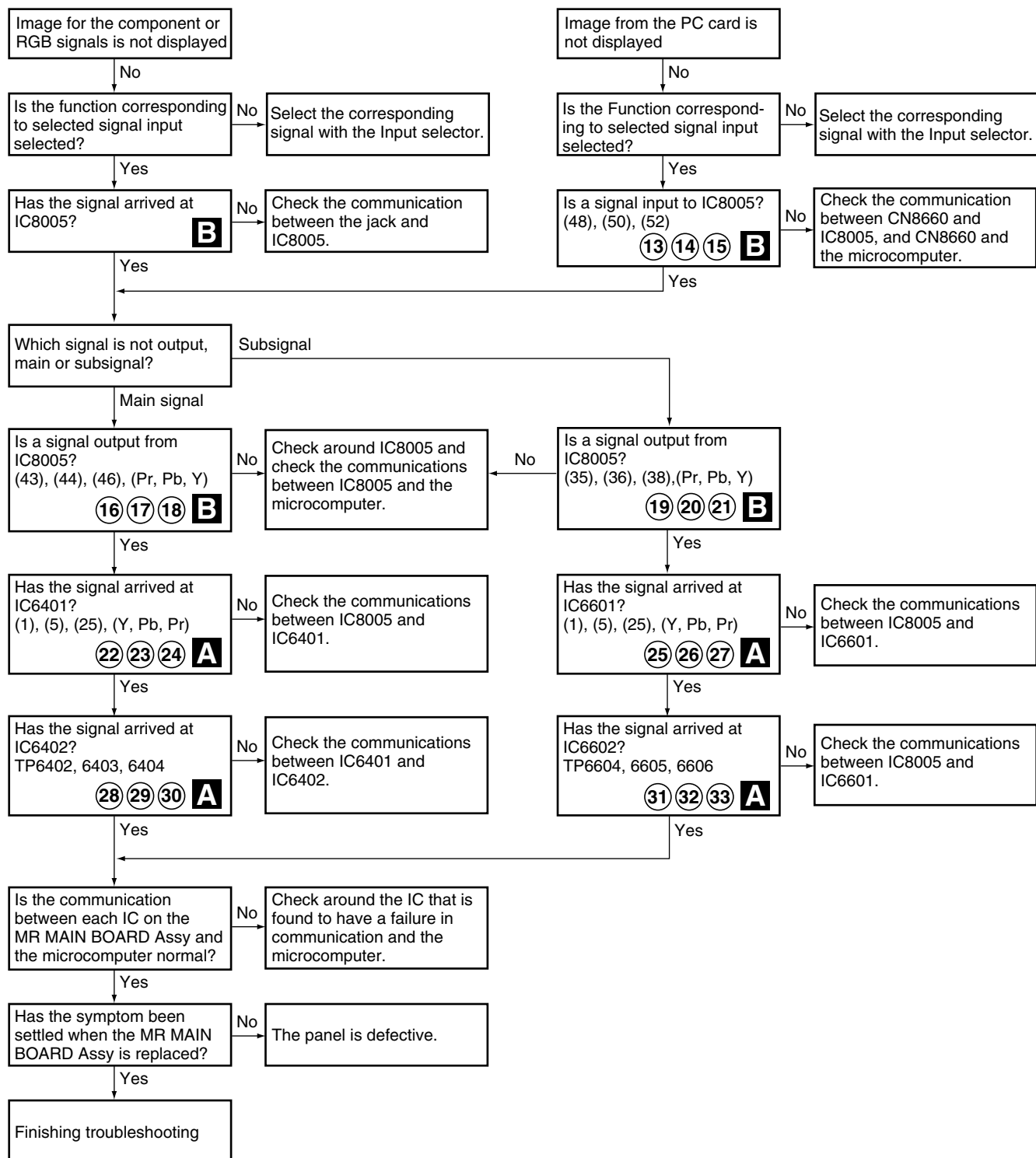
B AV BOARD ASSY

- For check the communication with the microcomputer, refer to the section 6.7 SERVICE FACTORY MODE.
- The encircled numbers denote measuring point in the Waveforms for Troubleshooting.

● MONITOR OUT image is not displayed

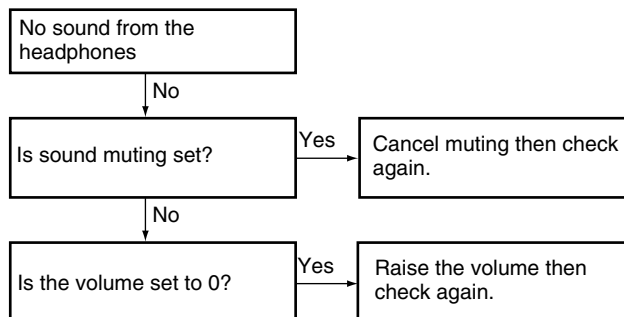


● Image for the component or RGB signals is not displayed

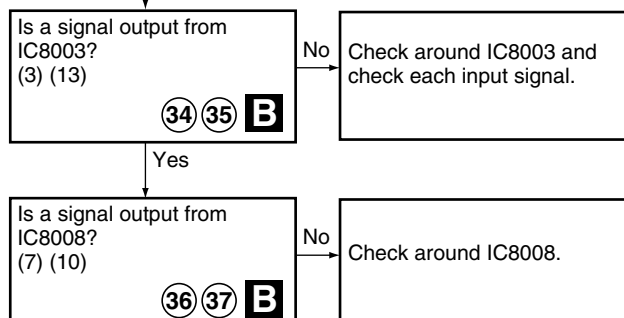


● No sound from the headphones

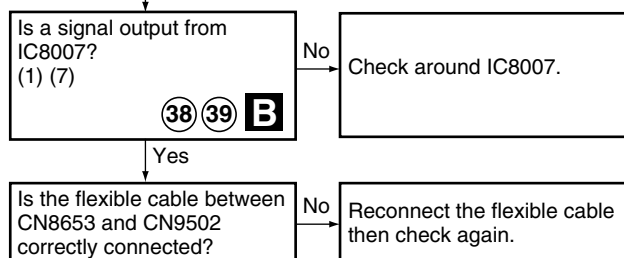
A



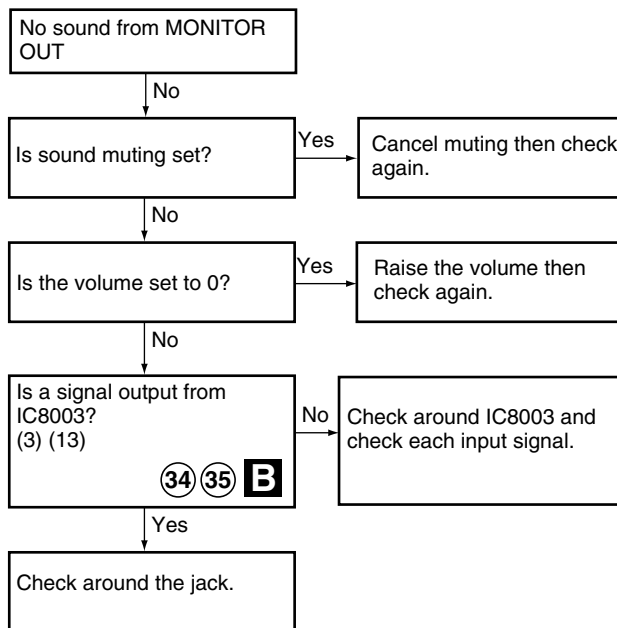
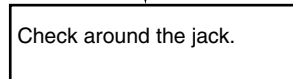
B



C



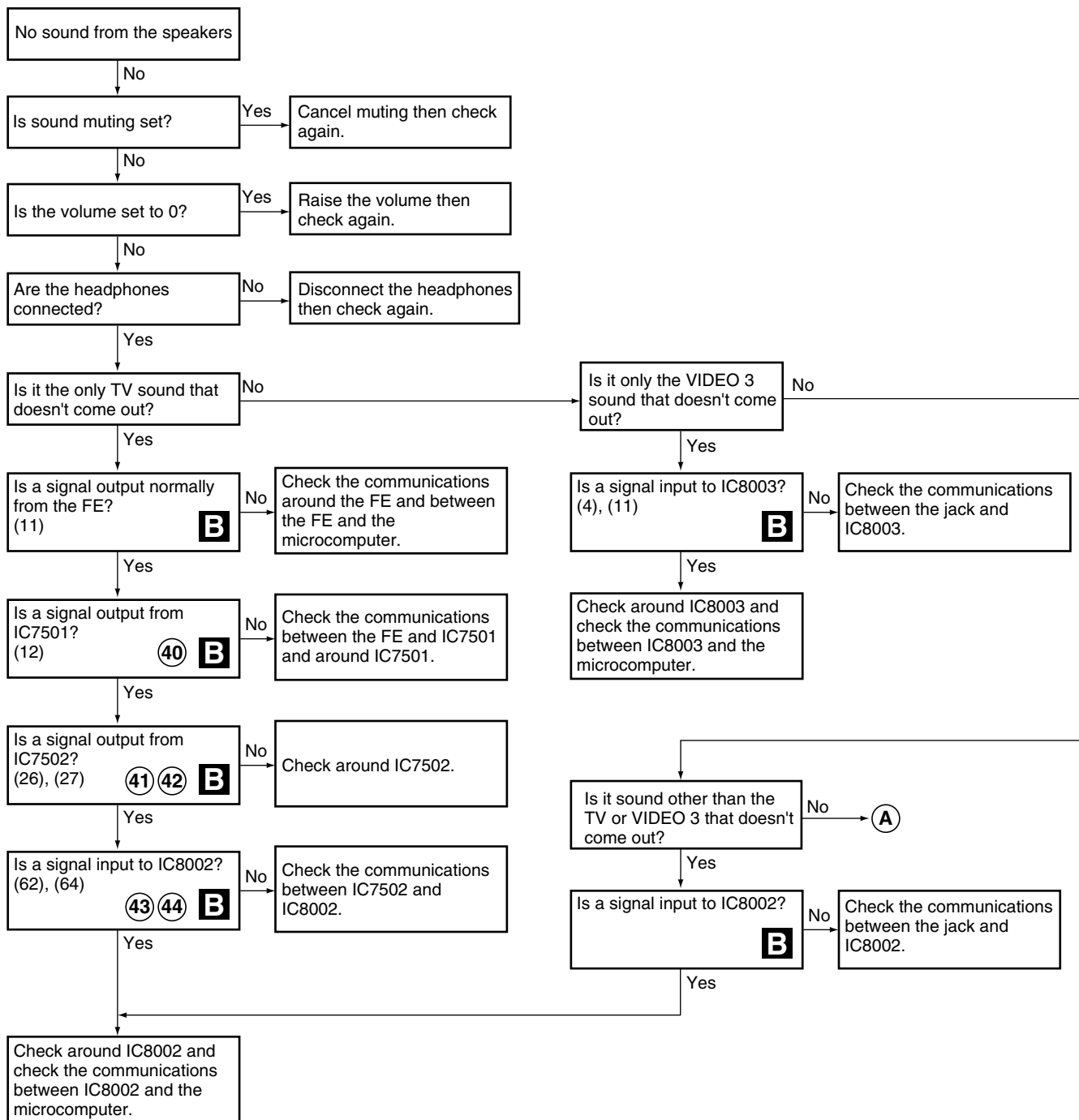
D



E

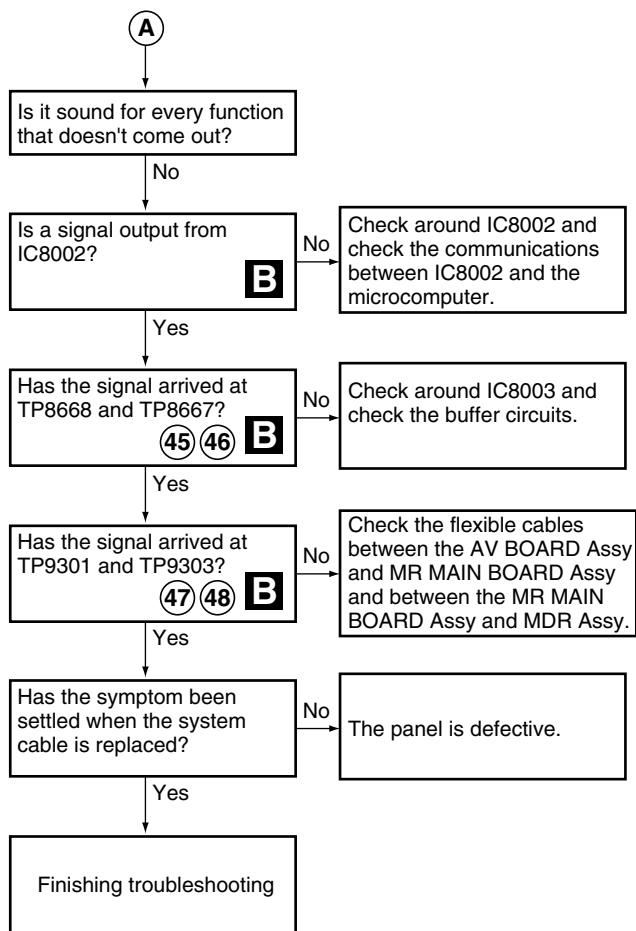
F

● No sound from the speakers (1/2)



● No sound from the speakers (2/2)

A



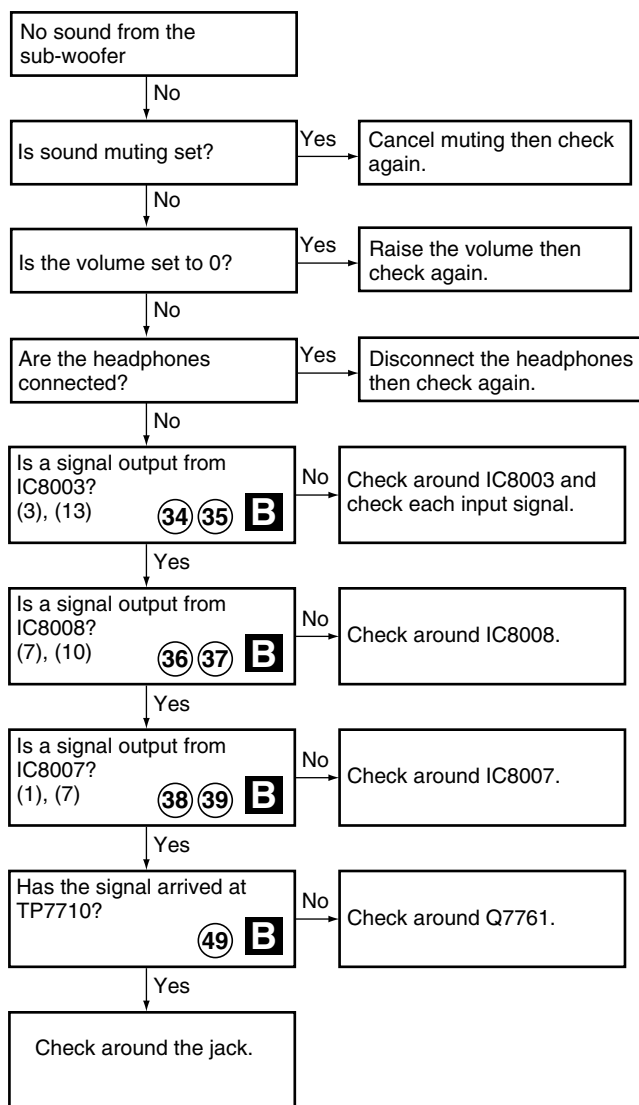
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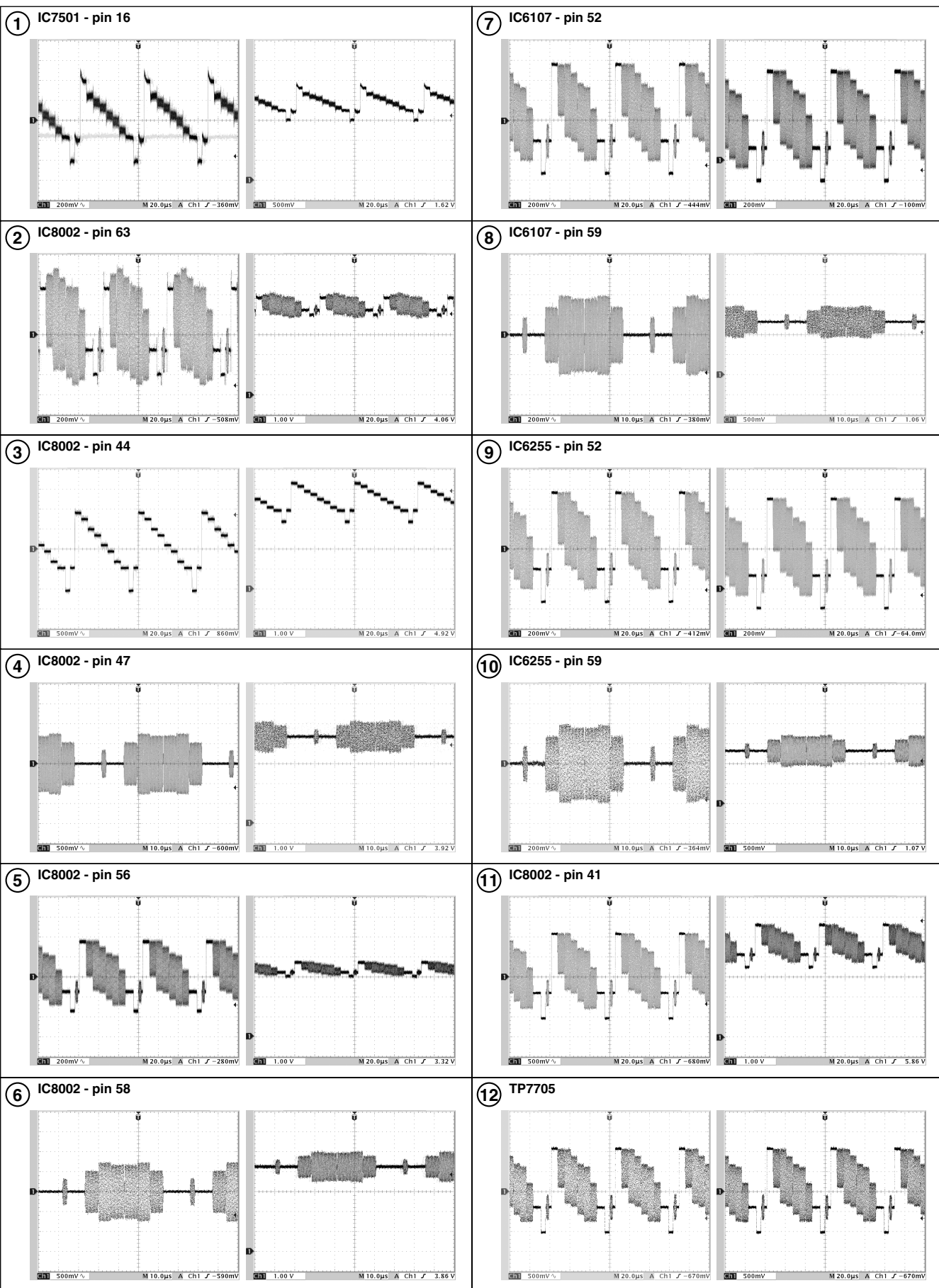
C

D

E

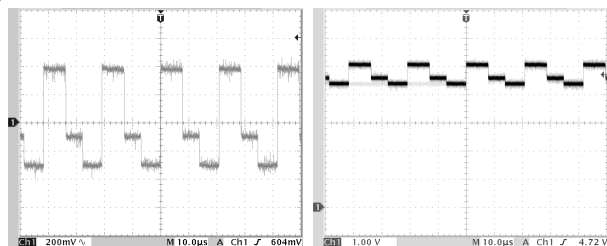
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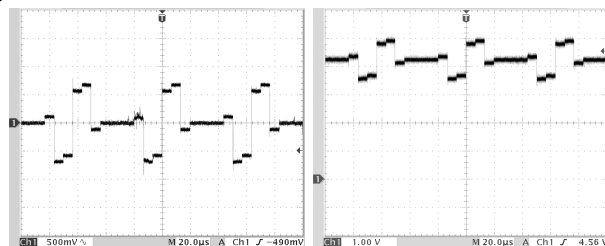


A

⑬ IC8005 - pin 48

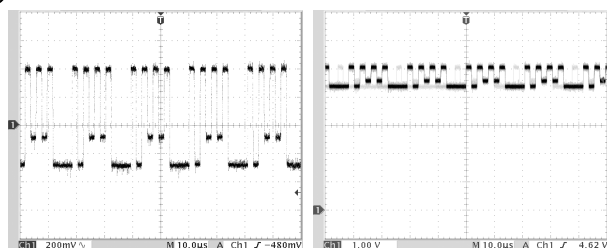


⑰ IC8005 - pin 35

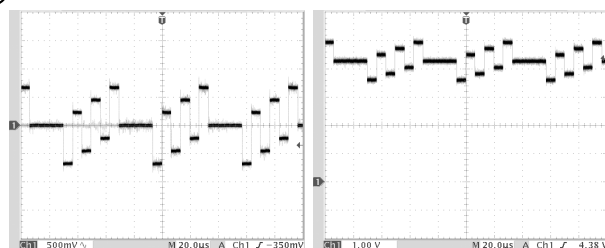


B

⑭ IC8005 - pin 50

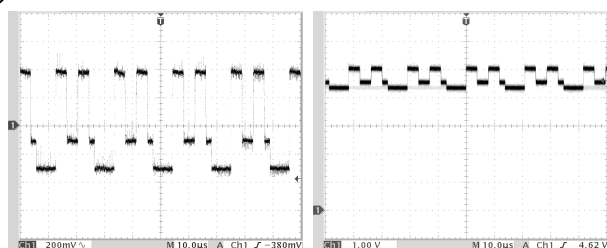


⑳ IC8005 - pin 36

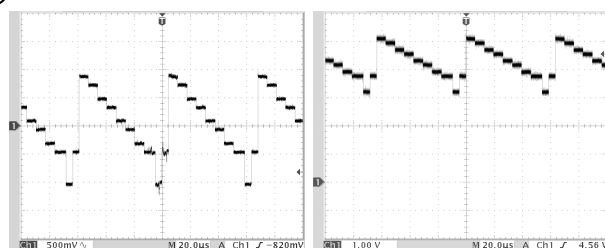


C

⑮ IC8005 - pin 52

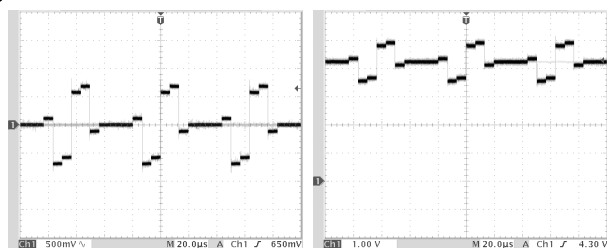


㉑ IC8005 - pin 38

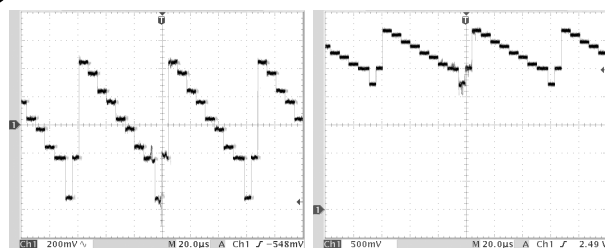


D

⑯ IC8005 - pin 43

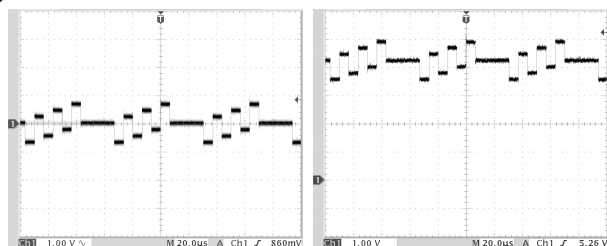


㉒ IC6401 - pin 1

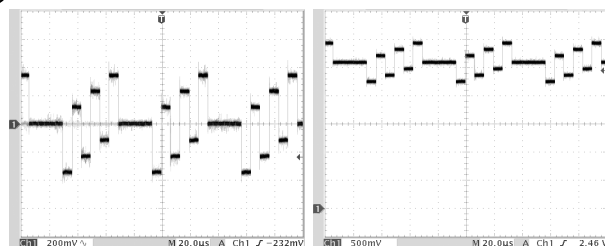


E

⑰ IC8005 - pin 44

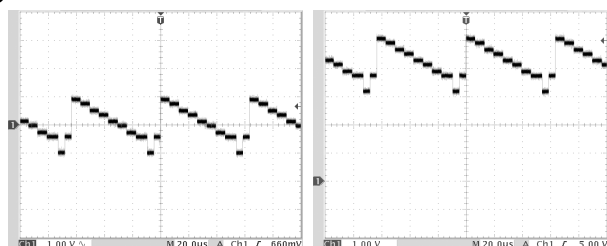


㉓ IC6401 - pin 5

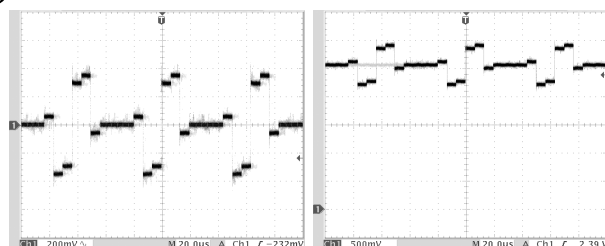


F

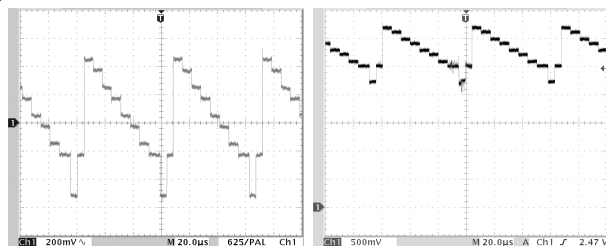
⑱ IC8005 - pin 46



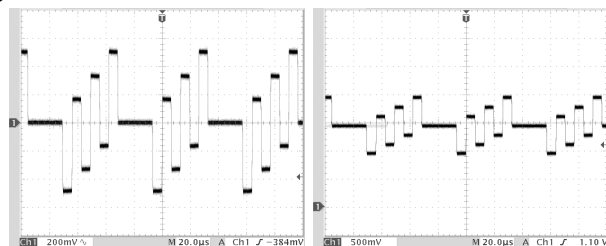
㉔ IC6401 - pin 25



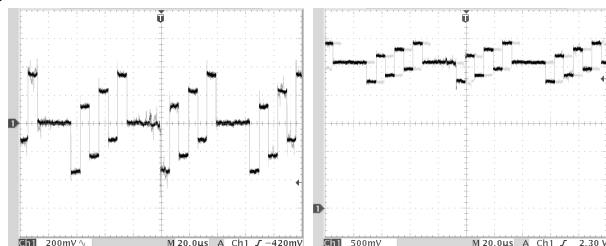
25 IC6601 - pin 1



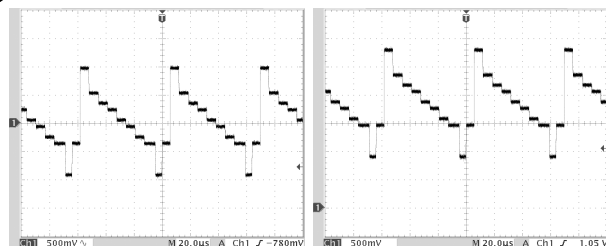
31 TP6604



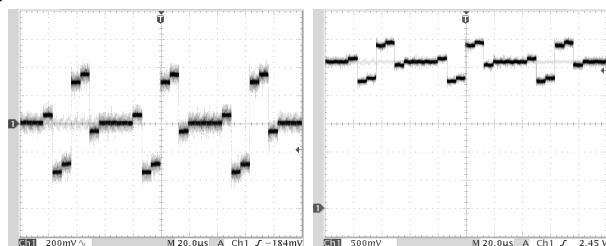
26 IC6601 - pin 5



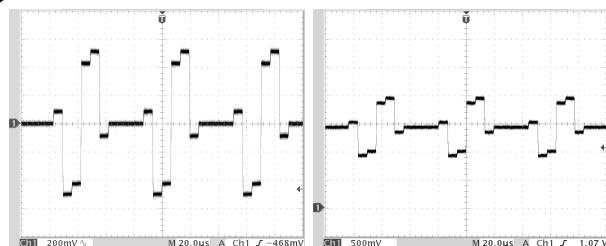
32 TP6605



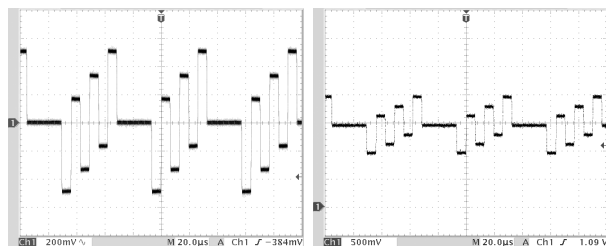
27 IC6601 - pin 25



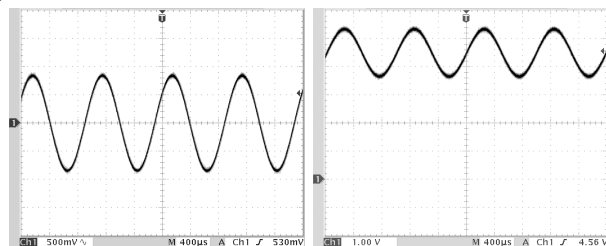
33 TP6606



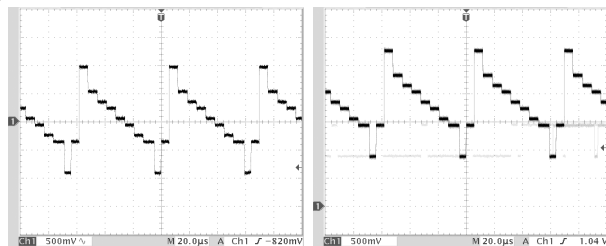
28 TP6402



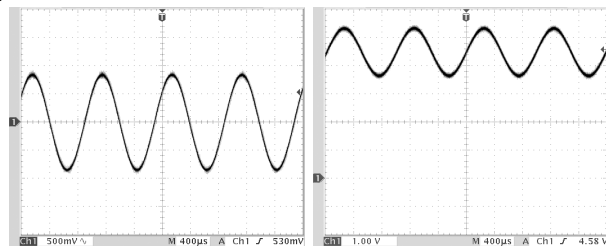
34 IC8003 - pin 3



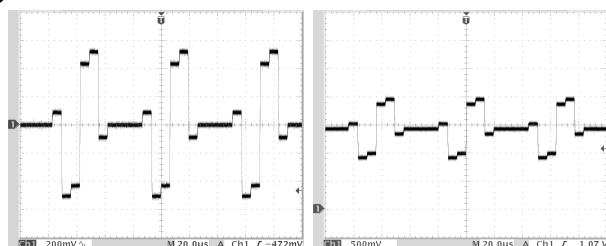
29 TP6403



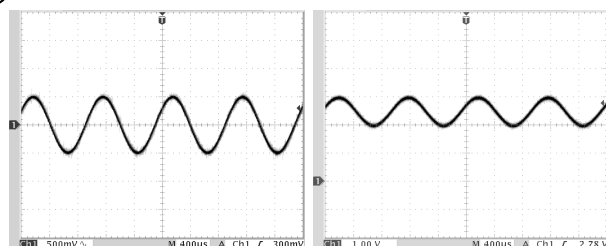
35 IC8003 - pin 13



30 TP6404

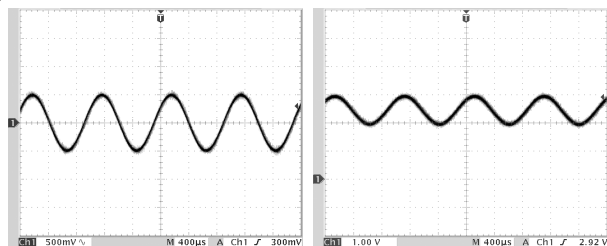


36 IC8006 - pin 7

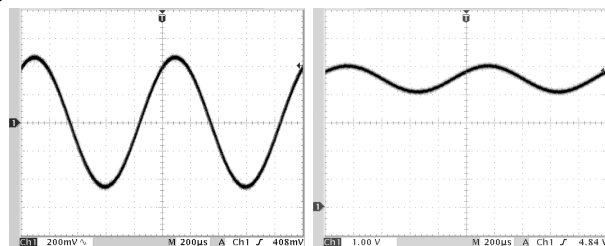


A

37 IC8006 - pin 10

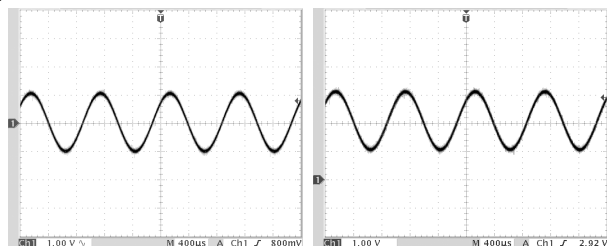


43 IC8002 - pin 62

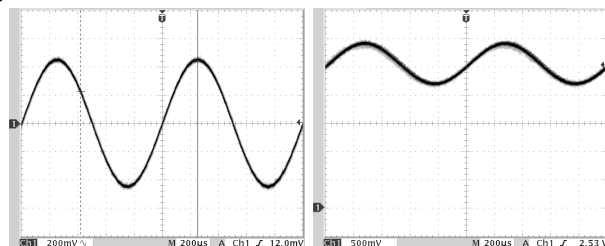


B

38 IC8007 - pin 1

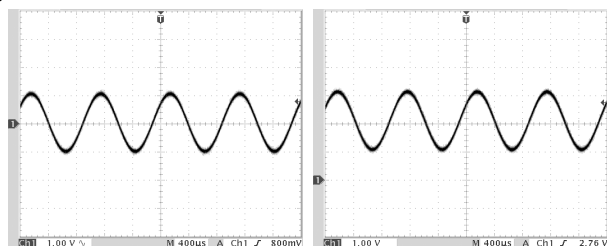


44 IC8002 - pin 64

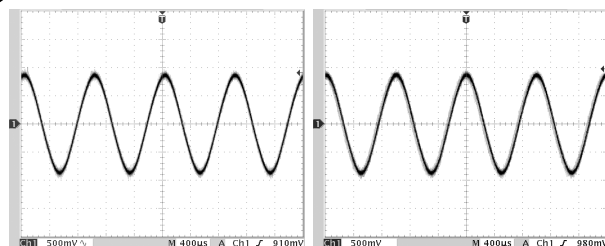


C

39 IC8007 - pin 7

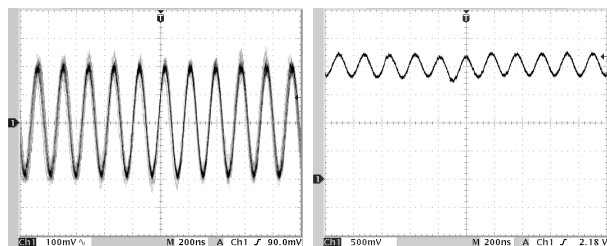


45 TP8667

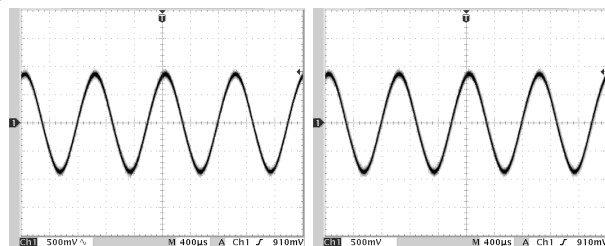


D

40 IC7501 - pin 12

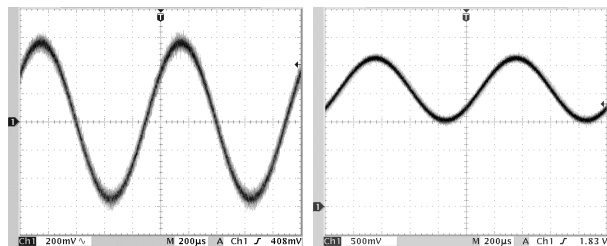


46 TP8668

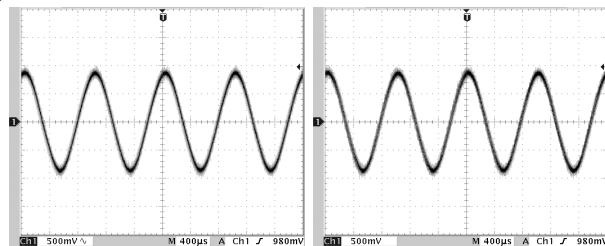


E

41 IC7502 - pin 26

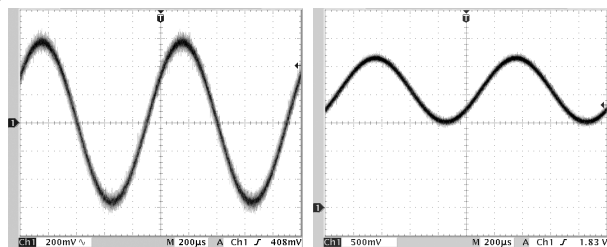


47 TP9301

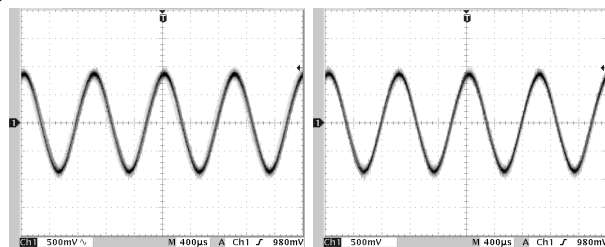


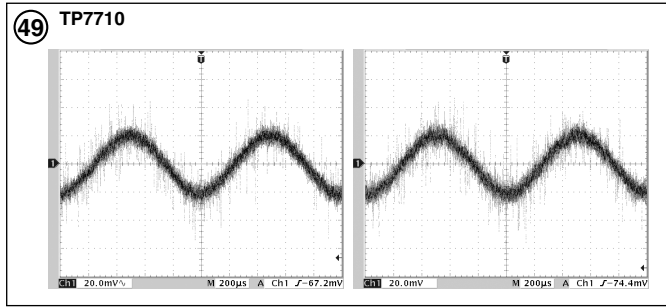
F

42 IC7502 - pin 27



48 TP9303





A

B

C

D

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F

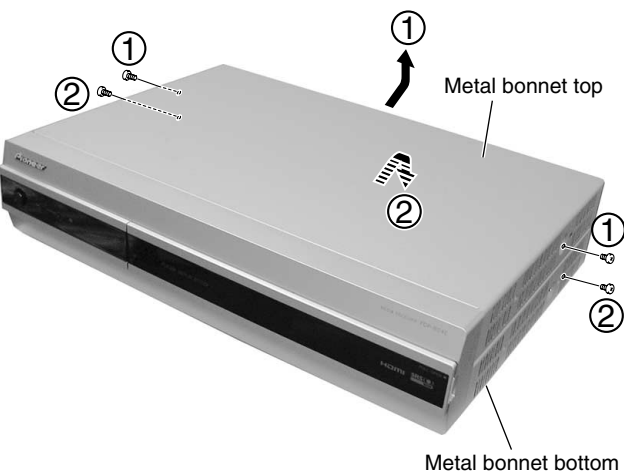
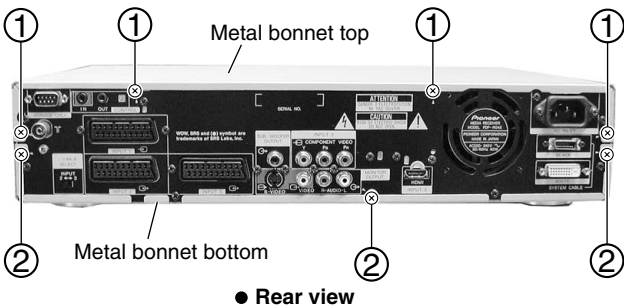
7.1.2 DISASSEMBLY

1 Metal bonnet top and bottom

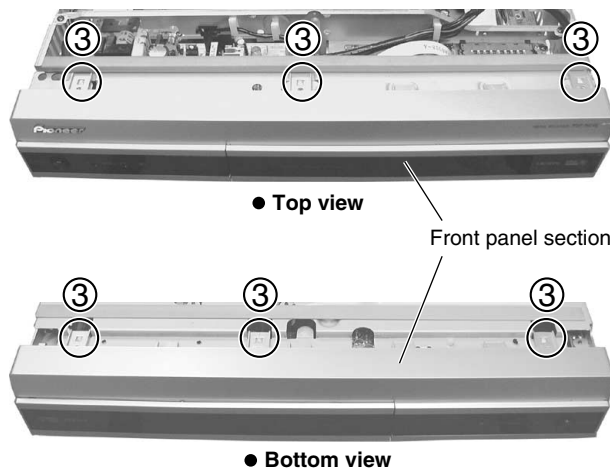
- ① Remove the metal bonnet top by removing the six screws.
- ② Remove the metal bonnet bottom by removing the five screws.

Caution :

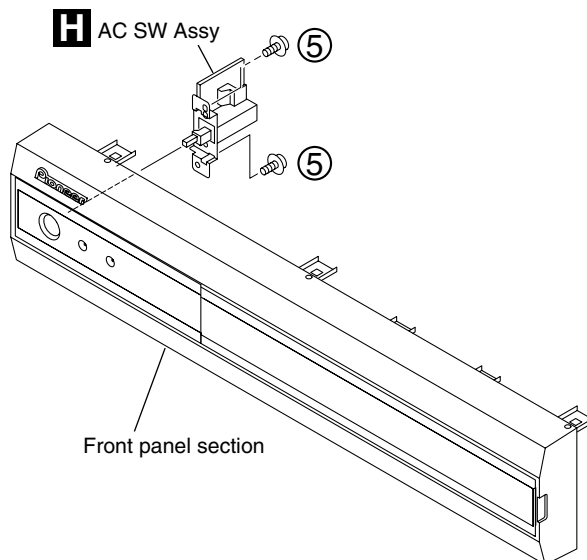
Please remove it after pulling it in a rear direction because metal bonnet top and bottom are hard to reduce.



- ③ Remove the six hooks.

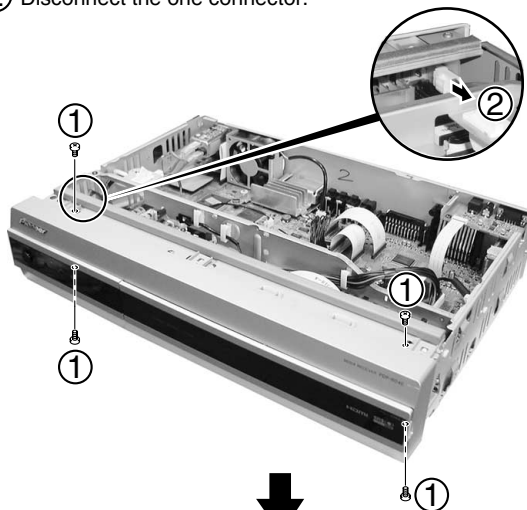


- ④ Remove the front panel section.
- ⑤ Remove the AC SW Assy by removing the two screws.



2 Front panel section

- ① Remove the four screws.
- ② Disconnect the one connector.



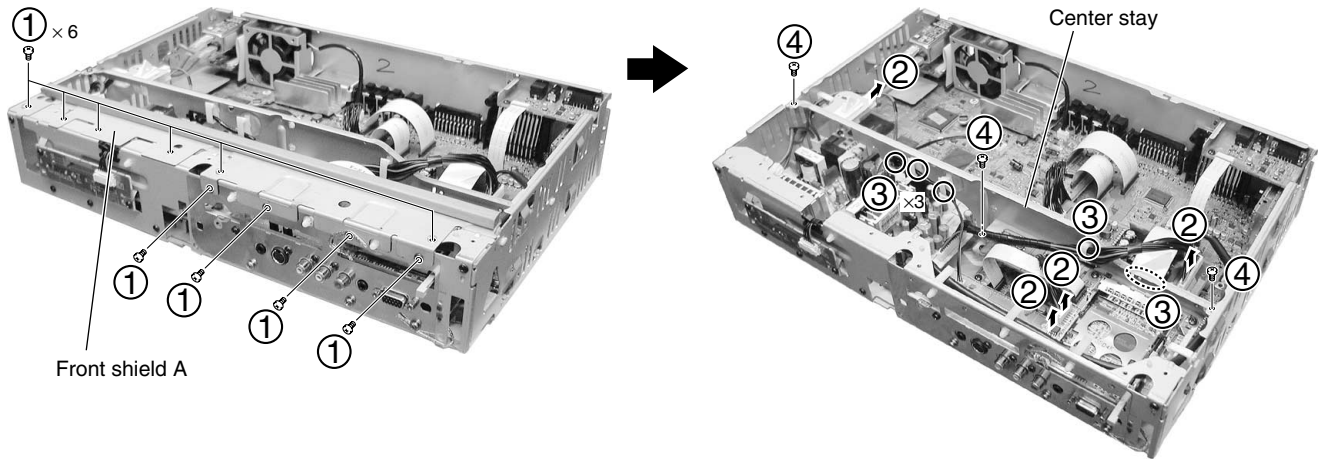
3 Front shield A and Center stay

① Remove the front shield A by removing the ten screws.

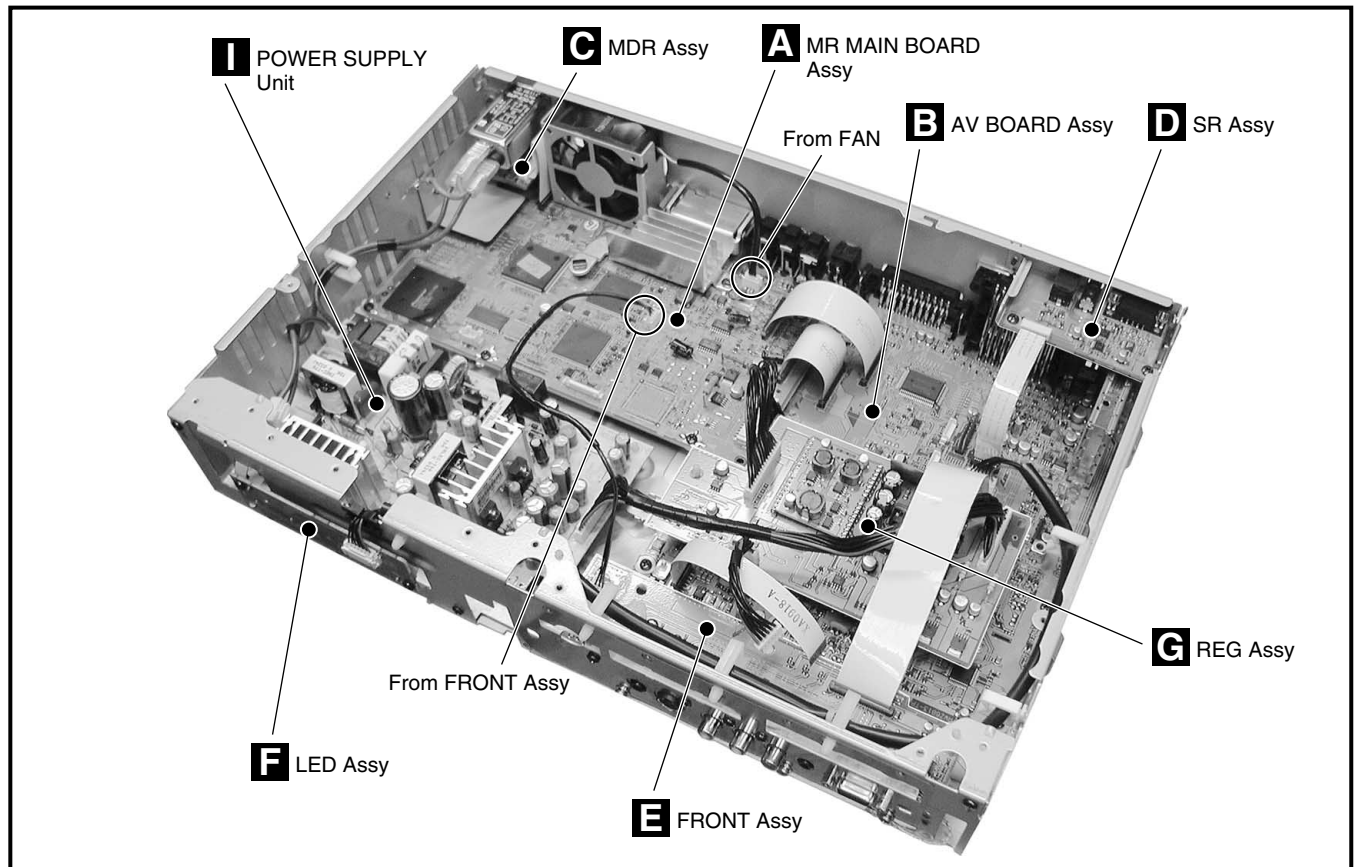
② Disconnect the three connectors and the one flexible cable.

③ Remove styling of the two cables.
Remove styling of the one flexible cable.

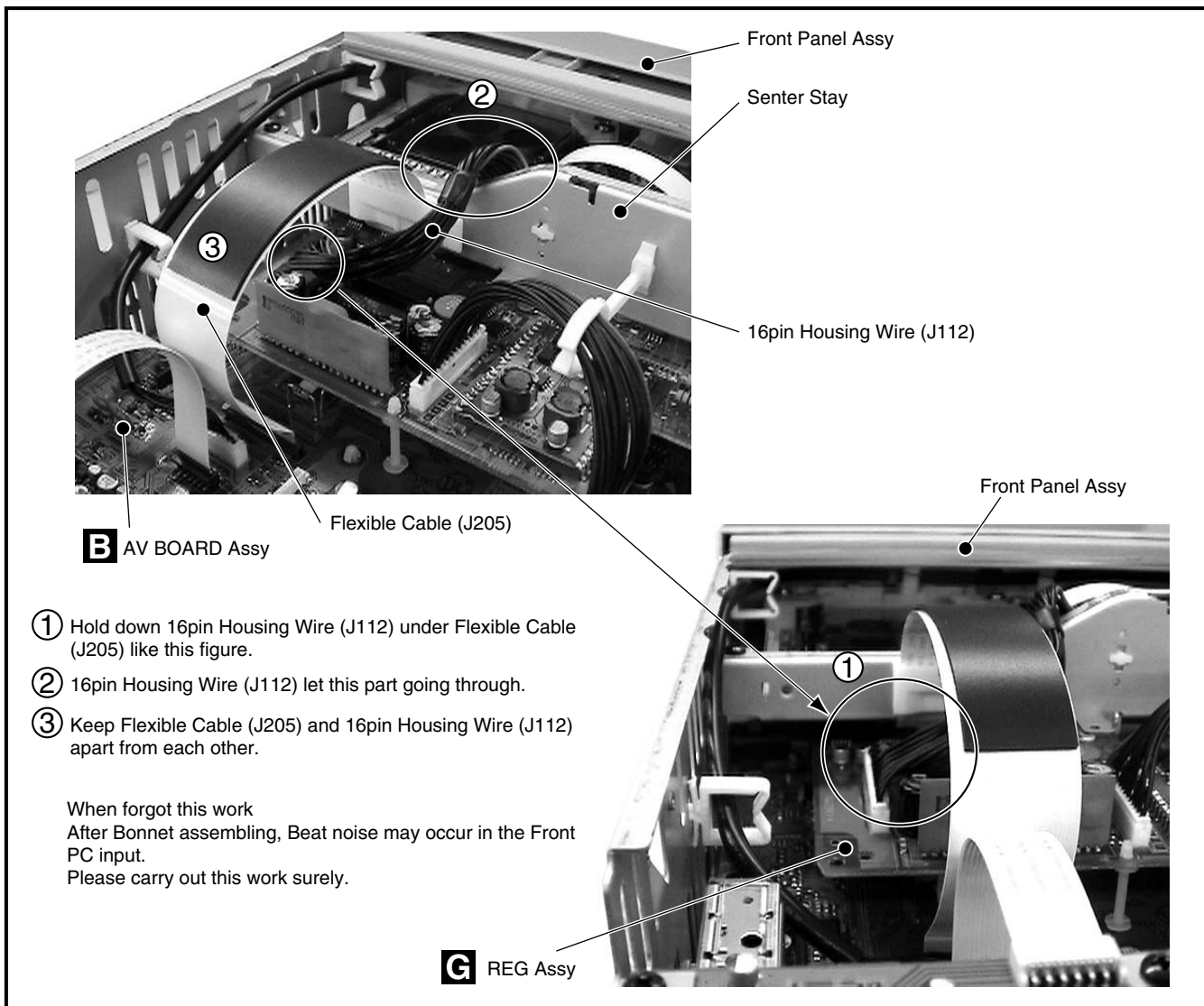
④ Remove the center stay by removing the three screws.



PCB Location



☞ Cable Styling in the Assembly

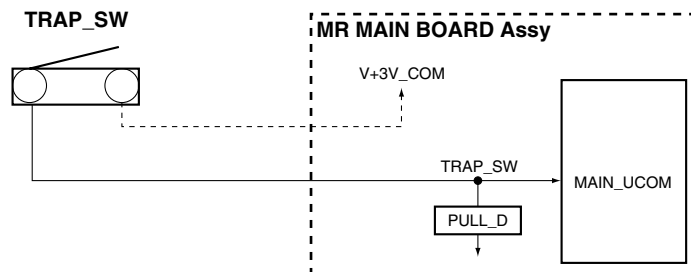


7.2 EXPLANATION

7.2.1 PROCESSING IN ABNORMALITY (TRAP SW)

TRAP_SW

● Circuit diagram



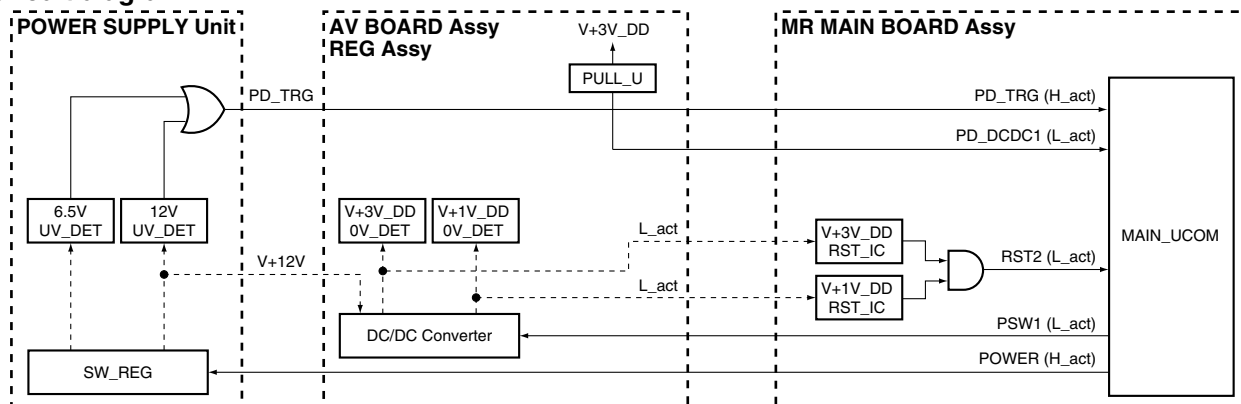
● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
TRAP_SW	Modification tried	30	OFF with H

7.2.2 PROCESSING IN ABNORMALITY

Power supply and DC-DC converter

● Circuit diagram

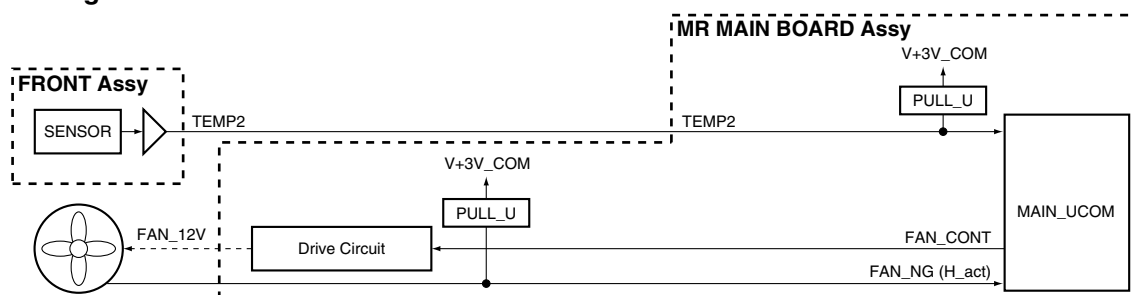


● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
PD_MAIN (PD_TRG)	MR_PWR	38	Power-down with H
PD_DCDC1	ASIC power supply	43	Shutdown with L
RST2	ASIC power supply	98	Shutdown with L

Fan and temperature sensor

● Circuit diagram



● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
FAN_NG	FAN	31	Shutdown with H
TEMP2	Abnormally high temperature in the MR	50	Shutdown when the value exceeds the predetermined value

F M D C B A

LED-lighting patterns

Status of the Unit		LED-lighting Pattern
Standby, power management	Lit in red	
Power on	Lit in green	
PDP's power not on	Flashing in red (at 1-sec intervals)	
System cable disconnected *	Flashing alternately in red and green (at 1-sec intervals)	
Waiting for start of rewriting by the microcomputer		
Waiting for finish of rewriting by the microcomputer		
Shutdown (circuit protection)	Flashing in green n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
Power-down (circuit protection)	Flashing in red for n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
TRAP switch operation		

* In this case, the red and green areas on the screen of the panel flash alternately.

■ Defective points assumed from the number of times of LED flashing

No. of times of LED flashing LEDs on the panel				Category *1	Site detected as defective	Possible defective points (representative examples)				OSD when detected (warning message)
RED	GRN	RED	GRN							
	Green 1	Red			Panel drive IC	*2				None
	Green 2	Red			Module section IIC	*2				None
	Green 3	Red			Power decrease of DIGITAL-DC-DC	*2				None
	Green 4	Red			Panel having abnormally high temperature	*2				The power is shut down, because the internal temperature has risen. Check the temperature surrounding the PDP. (SD04)
	Green 5	Red			Short-circuiting of the speakers	*2				The power is shut down, because the protection circuit inside the unit is activated. Check if the speaker cables are short-circuited. (SD05)
Red			Green 6	SD	Module microcomputer		Disconnection of the system cable Defective module microcomputer or its peripheral circuits of the panel (Refer to the service manual of the PDP-434PU or PDP-504PU.) Defective main microcomputer (IC7207) Failure in communication (TXD_MD, RXD_MD, REQ_MD) between the panel's module microcomputer and IC7207 (main microcomputer)			None
Red			Green 7		3-wire serial connection of the main section		Defective IC7004 or its peripheral circuits Failure in communication (TXD_IC, XD_IC2, CLK_IC2, IC2_CE, IC2_EMG) between IC7004 and IC7207 (main microcomputer) Defective IC7101 or its peripheral circuits Failure in communication (TXD_IC3, RXD_IC3, CLK_IC3, IC3_CE, IC3_REQ, IC3_BUSY) between IC7101 and IC7207 (main microcomputer)			None
Red			Green 8		IIC of the main section		Defective IC6107 (CD_MAIN) or its peripheral circuits Defective IC6255 (CD_SUB) or its peripheral circuits Defective IC6402 (AD_MAIN) or its peripheral circuits Defective IC6602 (AD_SUB) or its peripheral circuits Defective IC6881 (HDMI_2) or its peripheral circuits Defective IC6951 (BUS_SW) or its peripheral circuits Defective IC7401 (TX) or its peripheral circuits Defective U7501 (TU) or its peripheral circuits Defective IC8002 (AV_SW) or its peripheral circuits Defective IC8005 (RGB_SW) or its peripheral circuits Defective IC7205 (E2P) or its peripheral circuits Failure in communication (SCL_AV, SDA_AV, SCL_MAIN, SDA_MAIN, SCL_HDMI, SDA_HDMI, SCL_EP, SDA_EP) between one of the above devices and IC7207 (main microcomputer)			None
Red			Green 9		Main microcomputer		Defective IC7207 (main microcomputer) Defective flexible cable for communication between the MR MAIN BOARD Assy and the AV BOARD Assy Failure in communication (TXD_IF, RXD_IF, CLK_IF, IF_CE, IF_BUSY) between IC7207 (main microcomputer) and IC8702 (main microcomputer)			None
Red			Green 10		Fan		Failure in the fan motor, or the fan stopped because of dust attached to the fan			None
Red			Green 11		MR or unit having abnormally high temperature		The Media Receiver or the unit being used at high temperature			The power is shut down, because the internal temperature has risen. Check the temperature surrounding the Media Receiver. (SD11)
Red			Green 12		Digital tuner (U.S. model)		Defective digital BS/CS tuner Failure in communication (TXD_DT, RXD_DT) between the digital BS/CS tuner and IC8702 (main microcomputer)			None
Red		Red 1	Green 13		ASIC power supply (DC-DC)		Defective U8502 (DD_CON) or short-circuiting elsewhere			None
Red 2		Red		PD	MR PWR		Defective Power Supply Assy of the Media Receiver, or power short-circuiting in another Assy			None
Red 3		Red			POWER	*2				None
Red 4		Red			SCAN	*2				None
Red 5		Red			SCN-5V	*2				None
Red 6		Red			Y-DRIVE	*2				None
Red 7		Red			Y-DCDC	*2				None
Red 8		Red			Y-SUS	*2				None
Red 9		Red			ADRS	*2				None
Red 10		Red			X-DRIVE	*2				None
Red 11		Red			X-DCDC	*2				None
Red 12		Red			X-SUS	*2				None
					D-DCDC	*2				None

*1: Shutdown (SD) is a protective operation controlled by the microcomputer, and you can turn on the unit again using the remote control unit. Power-down (PD) is a protective operation activated by the circuitry and can be reset after AC power is off for about 1 minute.
*2: Refer to the service manual of the PDP-434PU or PDP-504PU.

7.3 PARTS

7.3.1 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

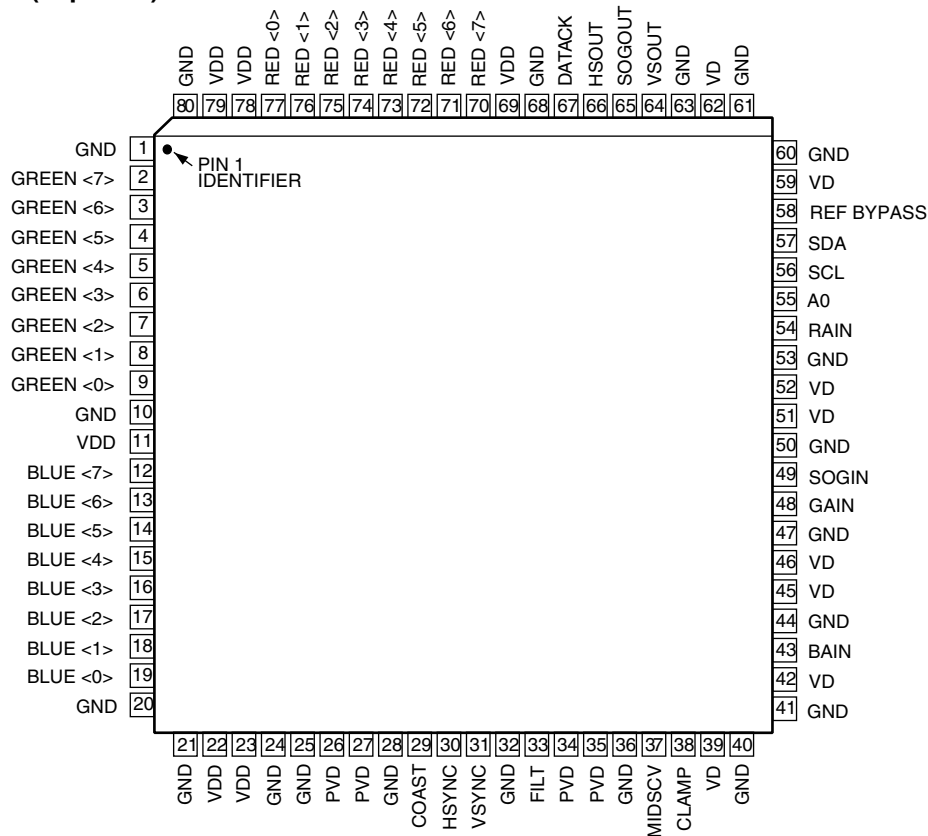
- List of IC

AD9883AKST-110, SM5301BS, BA7078AF, SiI9993CTG100, HY57V643220CT-7, MBM29PL3200BE70PFV, SiI170BCLG64, CXA2069Q, MSP3417G, MBM29LV160TE-90PFTN, HY57V641620HGT-7, TDA9818TS, TA1287FG, SDA6000, AXF1119, AXY1066, AXY1070

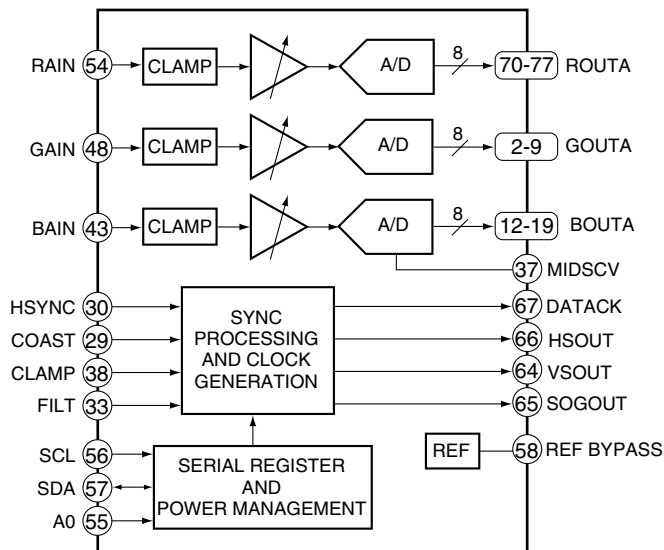
■ AD9883AKST-110 (MR MAIN BOARD ASSY : IC6402)

- 110 MSPS/140 MSPS Analog Interface

● Pin Arrangement (Top view)



- **Block Diagram**



● Pin Function

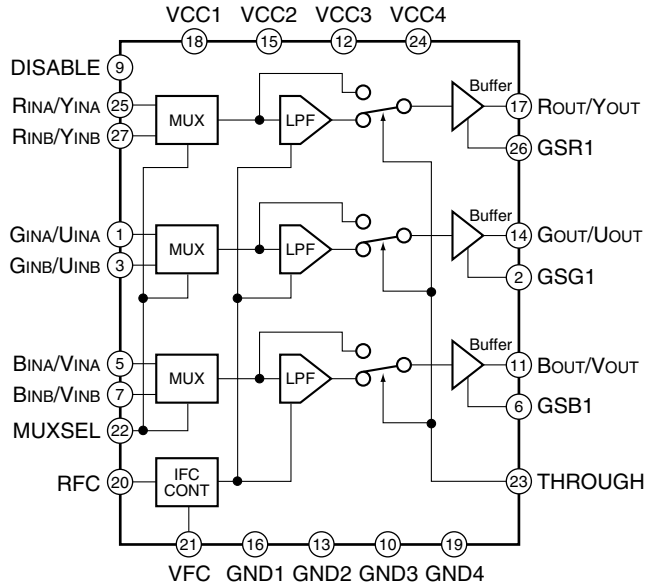
No.	Pin Name	I/O	Pin Function
1	GND	–	Ground
2	GREEN 7	O	Converter Green output (MSB)
3	GREEN 6	O	Converter Green output
4	GREEN 5	O	Converter Green output
5	GREEN 4	O	Converter Green output
6	GREEN 3	O	Converter Green output
7	GREEN 2	O	Converter Green output
8	GREEN 1	O	Converter Green output
9	GREEN 0	O	Converter Green output
10	GND	–	Ground
11	VDD	–	Power supply (3.3V)
12	BLUE 7	O	Converter Blue output (MSB)
13	BLUE 6	O	Converter Blue output
14	BLUE 5	O	Converter Blue output
15	BLUE 4	O	Converter Blue output
16	BLUE 3	O	Converter Blue output
17	BLUE 2	O	Converter Blue output
18	BLUE 1	O	Converter Blue output
19	BLUE 0	O	Converter Blue output
20	GND	–	Ground
21	GND	–	Ground
22	VDD	–	Power supply (3.3V)
23	VDD	–	Power supply (3.3V)
24	GND	–	Ground
25	GND	–	Ground
26	PVD	–	PLL power supply (3.3V)
27	PVD	–	PLL power supply (3.3V)
28	GND	–	Ground
29	COAST	I	PLL COAST signal input
30	HSYNC	I	Horizontal sync. input
31	VSYNC	I	Vertical sync. input
32	GND	–	Ground
33	FILT	–	External filter connection pin for built-in PLL
34	PVD	–	PLL power supply (3.3V)
35	PVD	–	PLL power supply (3.3V)
36	GND	–	Ground
37	MIDSCV	–	Internal middle scale voltage bias
38	CLAMP	I	Clamp input (External clamp signal)
39	VD	–	Analog power supply (3.3V)
40	GND	–	Ground
41	GND	–	Ground
42	VD	–	Analog power supply (3.3V)
43	BAIN	I	Analog input for converter B
44	GND	–	Ground
45	VD	–	Analog power supply (3.3V)

No.	Pin Name	I/O	Pin Function
46	VD	–	Analog power supply (3.3V)
47	GND	–	Ground
48	GAIN	I	Analog input for converter G
49	SOGIN	I	Input for Sync-on Green
50	GND	–	Ground
51	VD	–	Analog power supply (3.3V)
52	VD	–	Analog power supply (3.3V)
53	GND	–	Ground
54	RAIN	I	Analog input for converter R
55	A0	I	Address input 1 of serial port
56	SCL	I	Data clock (max. 100kHz) of serial port
57	SDA	I/O	Data input/output of serial port
58	REF BYPASS	–	Internal reference bypass
59	VD	–	Analog power supply (3.3V)
60	GND	–	Ground
61	GND	–	Ground
62	VD	–	Analog power supply (3.3V)
63	GND	–	Ground
64	VSOUT	O	VSYNC output (phasing with DATACLK)
65	SOGOUT	O	Sync-on-Green slicer output
66	HSOUT	O	HSYNC output (phasing with DATACLK)
67	DATACLK	O	Data input/output clock
68	GND	–	Ground
69	VDD	–	Power supply (3.3V)
70	RED 7	O	Converter Red output (MSB)
71	RED 6	O	Converter Red output
72	RED 5	O	Converter Red output
73	RED 4	O	Converter Red output
74	RED 3	O	Converter Red output
75	RED 2	O	Converter Red output
76	RED 1	O	Converter Red output
77	RED 0	O	Converter Red output
78	VDD	–	Power supply (3.3V)
79	VDD	–	Power supply (3.3V)
80	GND	–	Ground

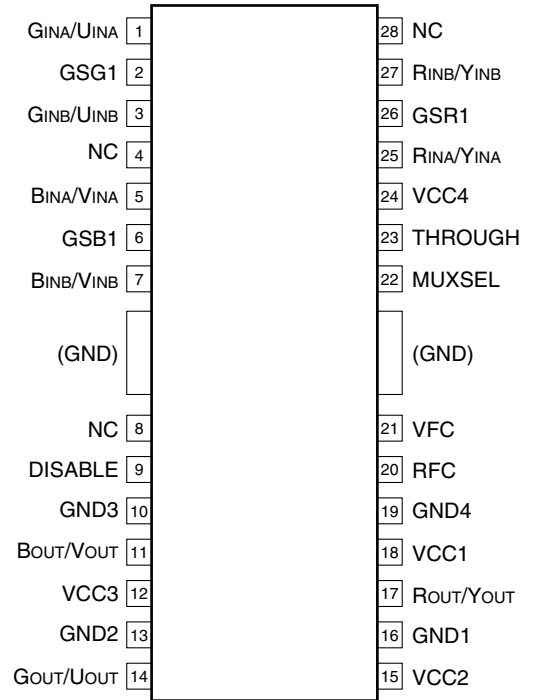
SM5301BS (MR MAIN BOARD ASSY : IC6601)

• Video Filter

Block Diagram



Pin Arrangement (Top view)



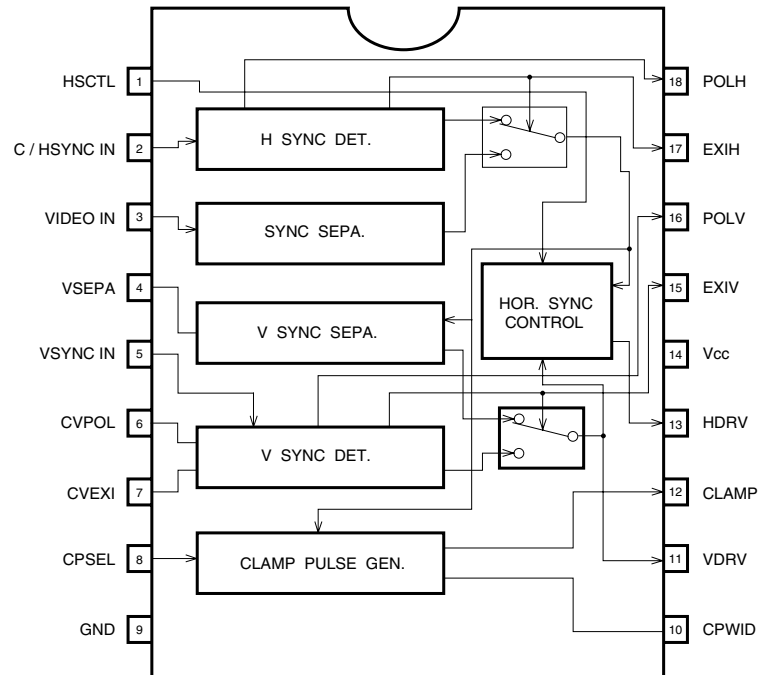
● Pin Function

No.	Pin Name	I/O	Pin Function
1	GINA/UINA	I	Analog GINA or UINA signal input. Sync signal is input on SYNCIN pin.
2	GSG1	I	GOUT/UOUT output buffer gain set input
3	GINB/UINB	I	Analog GINB or UINB signal input. Sync signal is input on SYNCIN pin.
4	(NC)	–	No connection
5	BINA/VINA	I	Analog BINA or VINA signal input. Sync signal is input on SYNCIN pin.
6	GSB1	I	BOUT/VOUT output buffer gain set input
7	BINB/VINB	I	Analog BINB or VINB signal input. Sync signal is input on SYNCIN pin.
8	(NC)	–	No connection
9	DISABLE	I	Power save function. Built-in pull-down resistor. L : Enable H : Disable (Output pins: ROUT/YOUT, GOUT/UOUT, and BOUT/VOUT are high impedance.)
10	GND3	–	Analog ground
11	BOUT/VOUT	O	B/V signal output
12	VCC3	–	Analog 5V supply
13	GND2	–	Analog ground
14	GOUT/UOUT	O	G/U signal output
15	VCC2	–	Analog 5V supply
16	GND1	–	Analog ground
17	ROUT/YOUT	O	R/Y signal output
18	VCC1	–	Analog 5V supply
19	GND4	–	Analog ground
20	RFC	–	LPF (lowpass filter) cutoff frequency setting resistor connection
21	VFC	I	LPF (lowpass filter) cutoff frequency setting voltage input
22	MUXSEL	I	Input select signal. Built-in pull-down resistor. L : XINA pin select H : XINB pin select
23	THROUGH	I	Filter through Built-in pull-down resistor. L : Filter function H : Filter through (buffer only)
24	VCC4	–	Analog 5V supply
25	RINA/YINA	I	Analog RINA or YINA signal input. Sync signal is input on SYNCIN pin.
26	GSR1	I	ROUT/YOUT output buffer gain set input
27	RINB/YINB	I	Analog RINB or YINB signal input. Sync signal is input on SYNCIN pin.
28	(NC)	–	No connection

■ BA7078AF (MR MAIN BOARD ASSY : IC6604)

• Multimedia IC

● Block Diagram



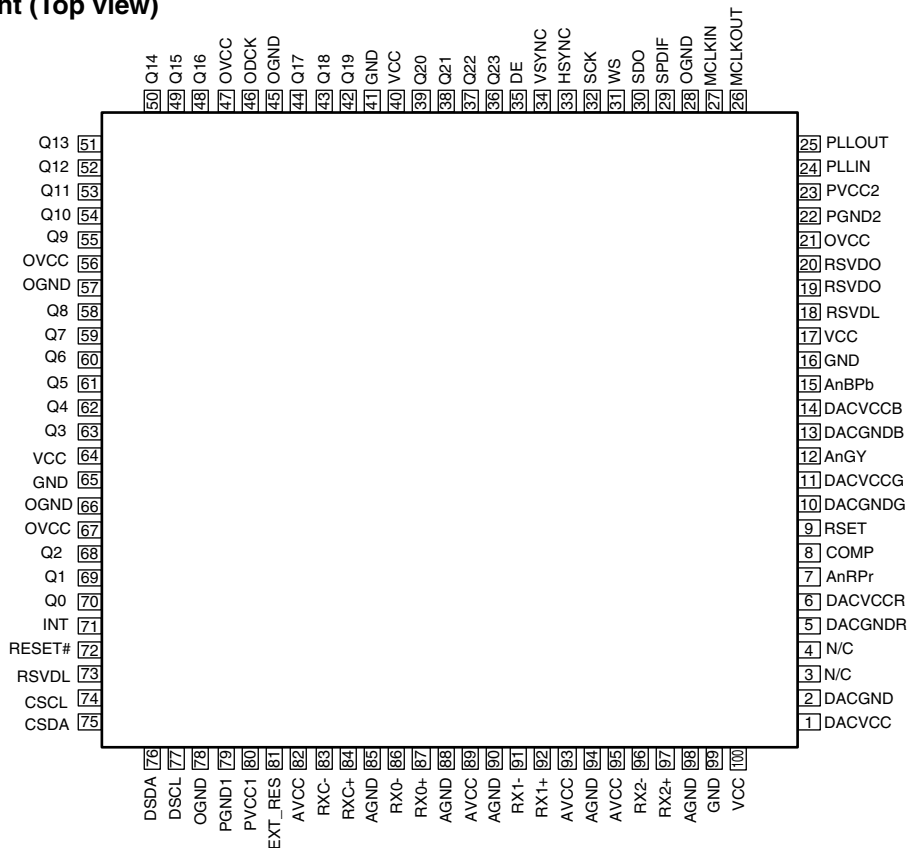
● Pin Function

No.	Pin Name	Pin Function
1	HSCTL	HDRV output Used to select whether to output the VDRV section of the HDRV output signal. High : VDRV section of HDRV is output Low : VDRV section of HDRV is not output
2	C/HSYNC IN	Composite sync / H SYNC input Input either the composite synchronization signal or the horizontal synchronization signal. Input is clamped, and is initiated by capacitor coupling.
3	VIDEO IN	SYNC ON VIDEO input Inputs the SYNC ON VIDEO signal(green). Input is sink chip clamped. Input is initiated by capacitor coupling.
4	VSEPA	f-V conversion Converts the horizontal synchronization signal frequency into a voltage. The voltage generated is proportional to the frequency of the horizontal synchronization signal. Attach a 0.56 μ F capacitor between the ground pins.
5	VSYNC IN	V SYNC input Inputs the vertical synchronization signal.
6	CVPOL	Vertical polarity integration Integrates the vertical synchronization signal polarity detection circuit. Attach a 1.5 μ F capacitor between this pin and the ground.
7	CVEXI	Vertical existence integration Integrates the vertical synchronization signal existence detection circuit. Attach a 1 μ F capacitor between this pin and the ground.
8	CPSEL	Setting the clamp position Used to set the clamp pulse generation position to either the front or back edge of HSYNC High : The front edge is the generation position Open : Composite / H SYNC IN : The front edge is the generation position VIDEO IN : The back edge is the generation position Low : The back edge is the generation position
9	GND	Ground
10	CPWID	Setting the clamp pulse width Sets the clamp pulse width according to the attached time constant. Attach a resistor between this pin and VCC and, a capacitor between this pin and GND. When R = 3.9k Ω and C = 100pF, pulse width is approximately 400 ns. Set the resistor to register an abnormality at 1k Ω .
11	VDRV	VDRV output Outputs the vertical synchronization signal. The output signal has positive polarity.
12	CLAMP	Clamp output Outputs the clamp pulse generated from the vertical synchronization signal. The output signal has a positive polarity.
13	HDRV	HDRV output Outputs the clamp pulse generated from the horizontal synchronization signal. The output signal has positive polarity.
14	Vcc	Power supply
15	EXIV	Vertical existence output Indicates whether the vertical synchronization signal exists.
16	POLV	Vertical polarity output Indicates the polarity of the vertical synchronization signal.
17	EXIH	Horizontal existence output Indicates whether the horizontal synchronization signal exists.
18	POLH	Horizontal polarity output Indicates the polarity of the horizontal synchronization signal.

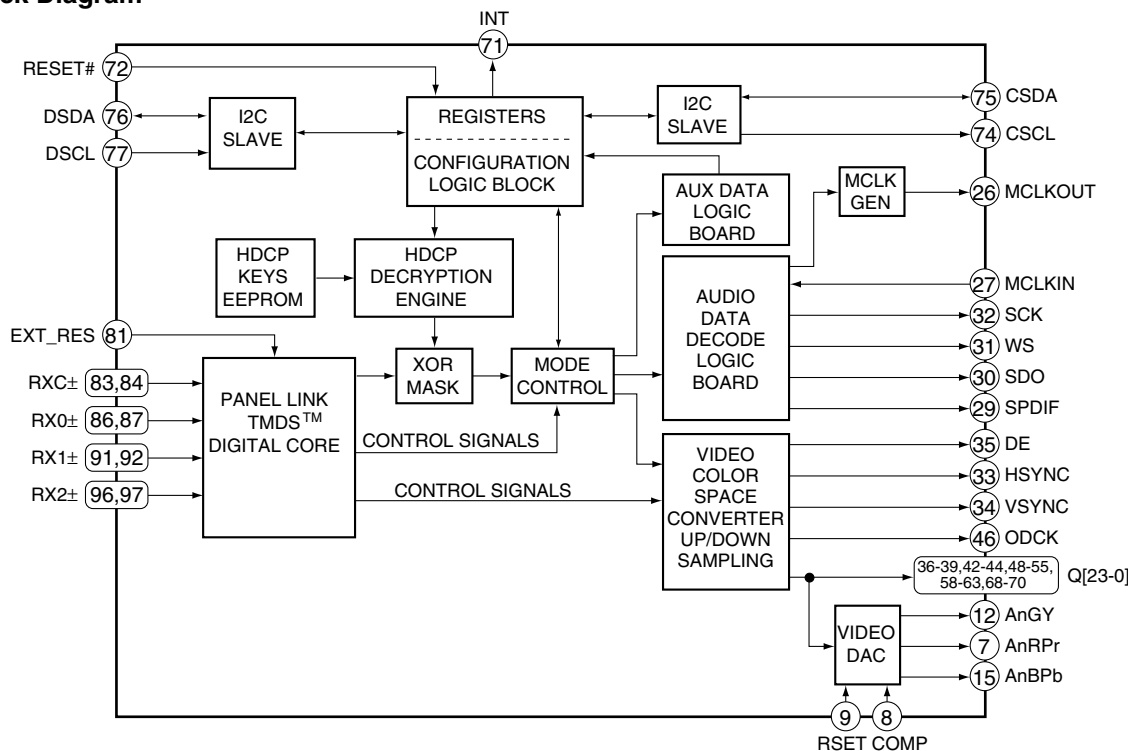
■ SiI9993CTG100 (MR MAIN BOARD ASSY : IC6881)

- HDCP Panel Link Receiver

● Pin Arrangement (Top view)



● Block Diagram



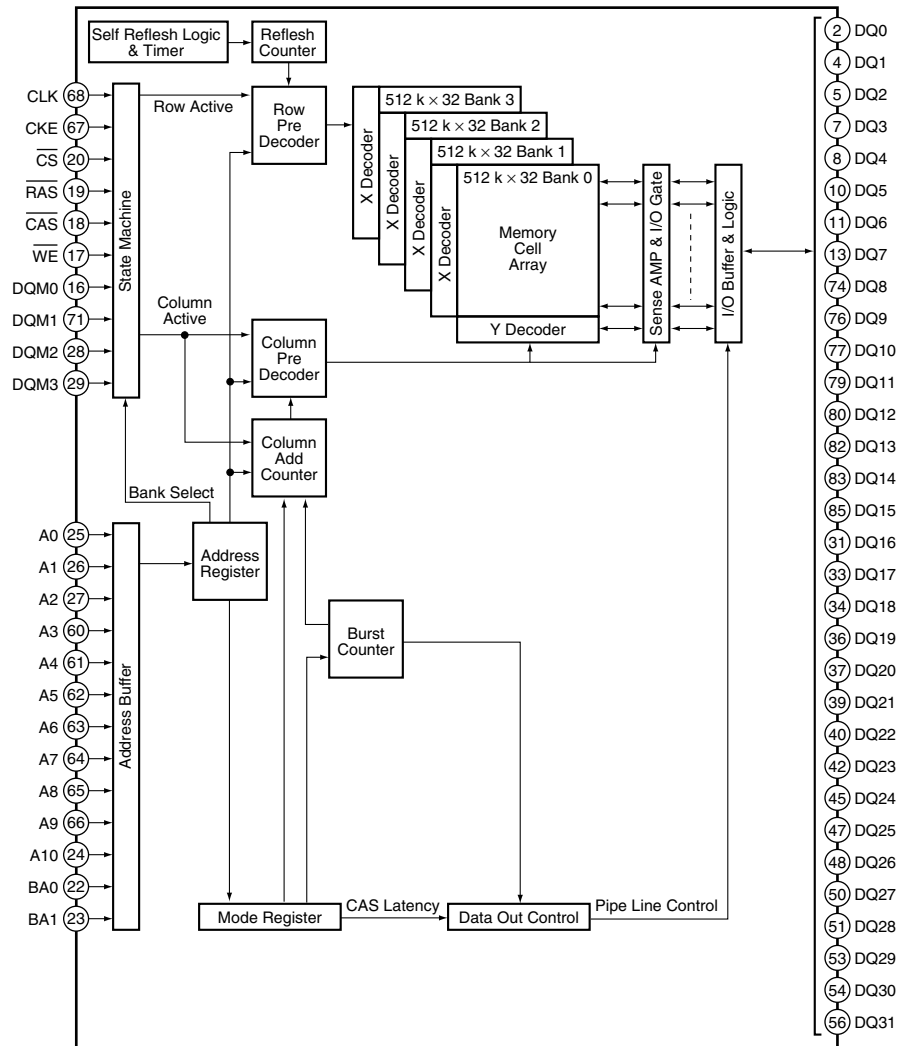
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	DACVCC	–	DAC power supply (3.3V)	51	Q13	O	24-bit output pixel data bus
2	DACGND	–	DAC ground	52	Q12	O	24-bit output pixel data bus
3	N/C	–	No connection	53	Q11	O	24-bit output pixel data bus
4	N/C	–	No connection	54	Q10	O	24-bit output pixel data bus
5	DACGNDR	–	DAC Red ground	55	Q9	O	24-bit output pixel data bus
6	DACVCCR	–	DAC Red power supply (3.3V)	56	OVCC	–	Output bus power supply (3.3V)
7	AnRPr	O	Red, Pr output of analog video	57	OGND	–	Output bus ground
8	COMP	I	For reference amp. correction of DAC inside	58	Q8	O	24-bit output pixel data bus
9	RSET	I	Full scale adjustment resistor input	59	Q7	O	24-bit output pixel data bus
10	DACGNDG	–	DAC Green ground	60	Q6	O	24-bit output pixel data bus
11	DACVCCG	–	DAC Green power supply (3.3V)	61	Q5	O	24-bit output pixel data bus
12	AnGY	O	Green, Y output of analog video	62	Q4	O	24-bit output pixel data bus
13	DACGNDB	–	DAC Blue ground	63	Q3	O	24-bit output pixel data bus
14	DACVCCB	–	DAC Blue power supply (3.3V)	64	VCC	–	Digital power supply (3.3V)
15	AnBPb	O	Blue, Pb output of analog video	65	GND	–	Digital ground
16	GND	–	Digital ground	66	OGND	–	Output bus ground
17	VCC	–	Digital power supply (3.3V)	67	OVCC	–	Output bus power supply (3.3V)
18	RSVDL	I	Reserved Fixed to low.	68	Q2	O	24-bit output pixel data bus
19	RSVDD	O	Reserved No connection	69	Q1	O	24-bit output pixel data bus
20	RSVDD	O	Reserved No connection	70	Q0	O	24-bit output pixel data bus
21	OVCC	–	Output bus power supply (3.3V)	71	INT	O	Interruption output
22	PGND2	–	Audio PLL ground	72	RESET#	I	Reset Activ low.
23	PVCC2	–	Audio PLL power supply (3.3V)	73	RSVDL	I	Reserved Fixed to low.
24	PLLIN	I/O	PLL filter input	74	CSCL	I	Configuration I2C clock
25	PLLOUT	I/O	PLL filter output	75	CSDA	I/O	Configuration I2C data
26	MCCLKOUT	O	Audio master clock output	76	DSDA	I/O	DDC I2C data
27	MCCLKIN	I	Reference audio master clock input	77	DSCL	I	DDC I2C clock
28	OGND	–	Output bus ground	78	OGND	–	Output bus ground
29	SPDIF	O	SPDIF audio output	79	PGND1	–	PLL ground
30	SDO	O	I2S serial data output	80	PVCC1	–	PLL power supply (3.3V)
31	WS	O	I2S word selecting output	81	EXT_RES	I	Input impedance adjustment
32	SCK	O	I2S serial clock output	82	AVCC	–	Analog power supply (3.3V)
33	HSYNC	O	Horizontal sync. control signal output	83	RXC-	I	TMDS data input
34	VSNC	O	Vertical sync. control signal output	84	RXC+	I	TMDS data input
35	DE	O	Data enable	85	AGND	–	Analog ground
36	Q23	O	24-bit output pixel data bus	86	RX0-	I	TMDS data input
37	Q22	O	24-bit output pixel data bus	87	RX0+	I	TMDS data input
38	Q21	O	24-bit output pixel data bus	88	AGND	–	Analog ground
39	Q20	O	24-bit output pixel data bus	89	AVCC	–	Analog power supply (3.3V)
40	VCC	–	Digital power supply (3.3V)	90	AGND	–	Analog ground
41	GND	–	Digital ground	91	RX1-	I	TMDS data input
42	Q19	O	24-bit output pixel data bus	92	RX1+	I	TMDS data input
43	Q18	O	24-bit output pixel data bus	93	AVCC	–	Analog power supply (3.3V)
44	Q17	O	24-bit output pixel data bus	94	AGND	–	Analog ground
45	OGND	–	Output bus ground	95	AVCC	–	Analog power supply (3.3V)
46	ODCK	O	Data clock output	96	RX2-	I	TMDS data input
47	OVCC	–	Output bus power supply (3.3V)	97	RX2+	I	TMDS data input
48	Q16	O	24-bit output pixel data bus	98	AGND	–	Analog ground
49	Q15	O	24-bit output pixel data bus	99	GND	–	Digital ground
50	Q14	O	24-bit output pixel data bus	100	VCC	–	Digital power supply (3.3V)

HY57V643220CT-7 (MR MAIN BOARD ASSY : IC7001, IC7002)

- Synchronous DRAM

Block Diagram



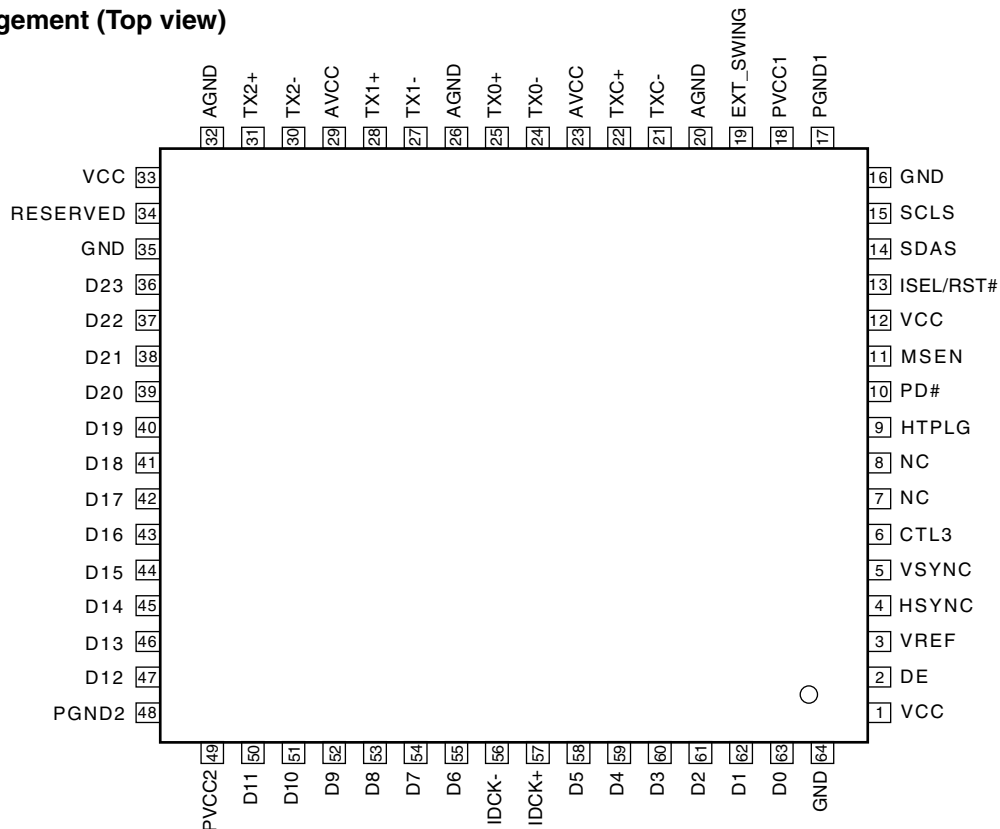
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	44	VSS	–	Ground
2	DQ0	I/O	Data input/output	45	DQ24	I/O	Data input/output
3	VDDQ	–	Power supply for output buffer	46	VSSQ	–	Ground for output buffer
4	DQ1	I/O	Data input/output	47	DQ25	I/O	Data input/output
5	DQ2	I/O	Data input/output	48	DQ26	I/O	Data input/output
6	VSSQ	–	Ground for output buffer	49	VDDQ	–	Power supply for output buffer
7	DQ3	I/O	Data input/output	50	DQ27	I/O	Data input/output
8	DQ4	I/O	Data input/output	51	DQ28	I/O	Data input/output
9	VDDQ	–	Power supply for output buffer	52	VSSQ	–	Ground for output buffer
10	DQ5	I/O	Data input/output	53	DQ29	I/O	Data input/output
11	DQ6	I/O	Data input/output	54	DQ30	I/O	Data input/output
12	VSSQ	–	Ground for output buffer	55	VDDQ	–	Power supply for output buffer
13	DQ7	I/O	Data input/output	56	DQ31	I/O	Data input/output
14	NC	–	No connection	57	NC	–	No connection
15	VDD	–	Power supply	58	VSS	–	Ground
16	DQM0	I	Data input/output mask	59	DQM3	I	Data input/output mask
17	/WE	I	Write enable	60	A3	I	Address input
18	/CAS	I	Column address strobe	61	A4	I	Address input
19	/RAS	I	Row address strobe	62	A5	I	Address input
20	/CS	I	Chip select input	63	A6	I	Address input
21	NC	–	No connection	64	A7	I	Address input
22	BA0	I	Bank address input	65	A8	I	Address input
23	BA1	I	Bank address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	NC	–	No connection
27	A2	I	Address input	70	NC	–	No connection
28	DQM2	I	Data input/output mask	71	DQM1	I	Data input/output mask
29	VDD	–	Power supply	72	VSS	–	Ground
30	NC	–	No connection	73	NC	–	No connection
31	DQ16	I/O	Data input/output	74	DQ8	I/O	Data input/output
32	VSSQ	–	Ground for output buffer	75	VDDQ	–	Power supply for output buffer
33	DQ17	I/O	Data input/output	76	DQ9	I/O	Data input/output
34	DQ18	I/O	Data input/output	77	DQ10	I/O	Data input/output
35	VDDQ	–	Power supply for output buffer	78	VSSQ	–	Ground for output buffer
36	DQ19	I/O	Data input/output	79	DQ11	I/O	Data input/output
37	DQ20	I/O	Data input/output	80	DQ12	I/O	Data input/output
38	VSSQ	–	Ground for output buffer	81	VDDQ	–	Power supply for output buffer
39	DQ21	I/O	Data input/output	82	DQ13	I/O	Data input/output
40	DQ22	I/O	Data input/output	83	DQ14	I/O	Data input/output
41	VDDQ	–	Power supply for output buffer	84	VSSQ	–	Ground for output buffer
42	DQ23	I/O	Data input/output	85	DQ15	I/O	Data input/output
43	VDD	–	Power supply	86	VSS	–	Ground

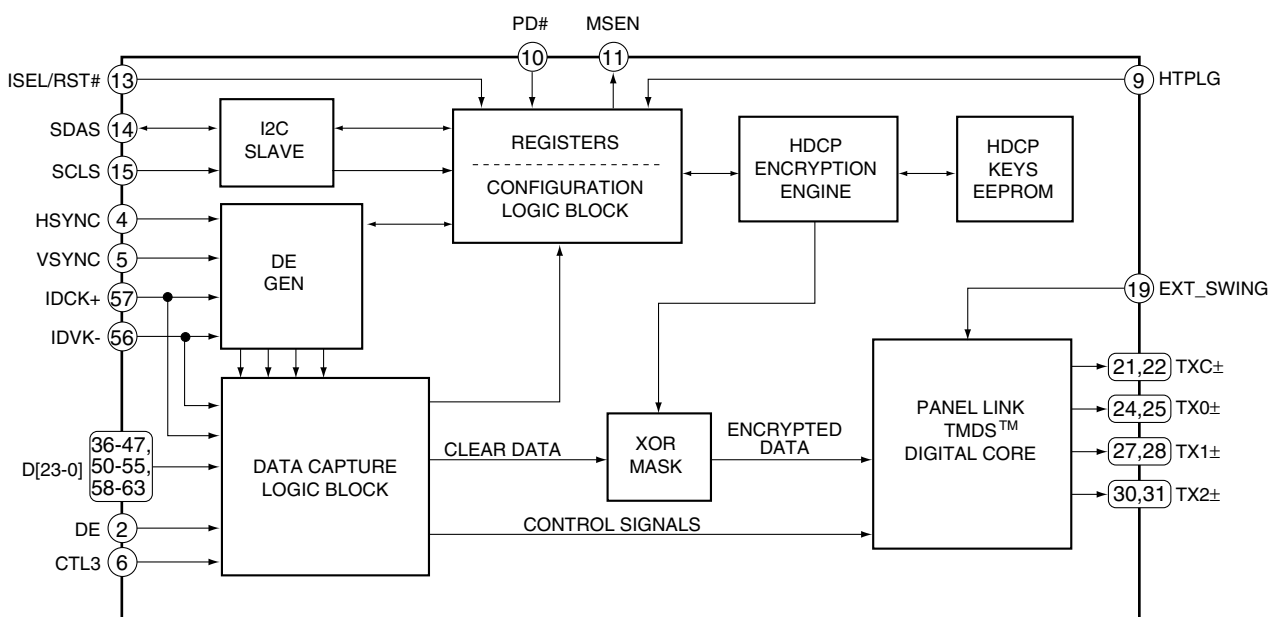
■ Si1170BCLG64 (MR MAIN BOARD ASSY : IC7401)

• HDCP Panel Link Transmitter

● Pin Arrangement (Top view)



● Block Diagram



● Pin Function

No.	Pin Name	I/O	Pin Function
1	VCC	–	Digital power supply (3.3V)
2	DE	I	Data enable
3	VREF	I	3.3V fixed
4	HSYNC	I	Horizontal sync. control signal input
5	VSYNC	I	Vertical sync. control signal input
6	CTL3	I	External CTL3 input
7	NC	–	No connection
8	NC	–	No connection
9	HTPLG	I	Monitor charge input
10	PD#	I	Power down input (Active low)
11	MSEN	O	Monitor sense output (open-collector output)
12	VCC	–	Digital power supply (3.3V)
13	ISEL/RST#	I	I2C interface selecting input High: I2C interface is active
14	SDAS	I/O	DDC I2C data input/output
15	SCLS	I	DDC I2C clock input
16	GND	–	Digital ground
17	PGND1	–	PLL analog ground
18	PVCC1	–	Analog power supply for PLL of primary side (3.3V)
19	EXT_SWING	I	Voltage regulation adjustment
20	AGND	–	Analog ground
21	TXC-	O	Differential signal clock output of TMDS Low voltage
22	TXC+	O	Differential signal clock output of TMDS Low voltage
23	AVCC	–	Analog power supply (3.3V)
24	TX0-	O	Differential signal clock output of TMDS Low voltage
25	TX0+	O	Differential signal clock output of TMDS Low voltage
26	AGND	–	Analog ground
27	TX1-	O	Differential signal clock output of TMDS Low voltage
28	TX1+	O	Differential signal clock output of TMDS Low voltage
29	AVCC	–	Analog power supply (3.3V)
30	TX2-	O	Differential signal clock output of TMDS Low voltage
31	TX2+	O	Differential signal clock output of TMDS Low voltage
32	AGND	–	Analog ground
33	VCC	–	Digital power supply (3.3V)
34	RESERVED	I	Reserved pin for Silicon Image Normally, fixed to low.
35	GND	–	Digital ground
36	D23	I	24-bit pixel bus input
37	D22	I	24-bit pixel bus input
38	D21	I	24-bit pixel bus input
39	D20	I	24-bit pixel bus input
40	D19	I	24-bit pixel bus input
41	D18	I	24-bit pixel bus input
42	D17	I	24-bit pixel bus input
43	D16	I	24-bit pixel bus input
44	D15	I	24-bit pixel bus input
45	D14	I	24-bit pixel bus input

A

B

C

D

E

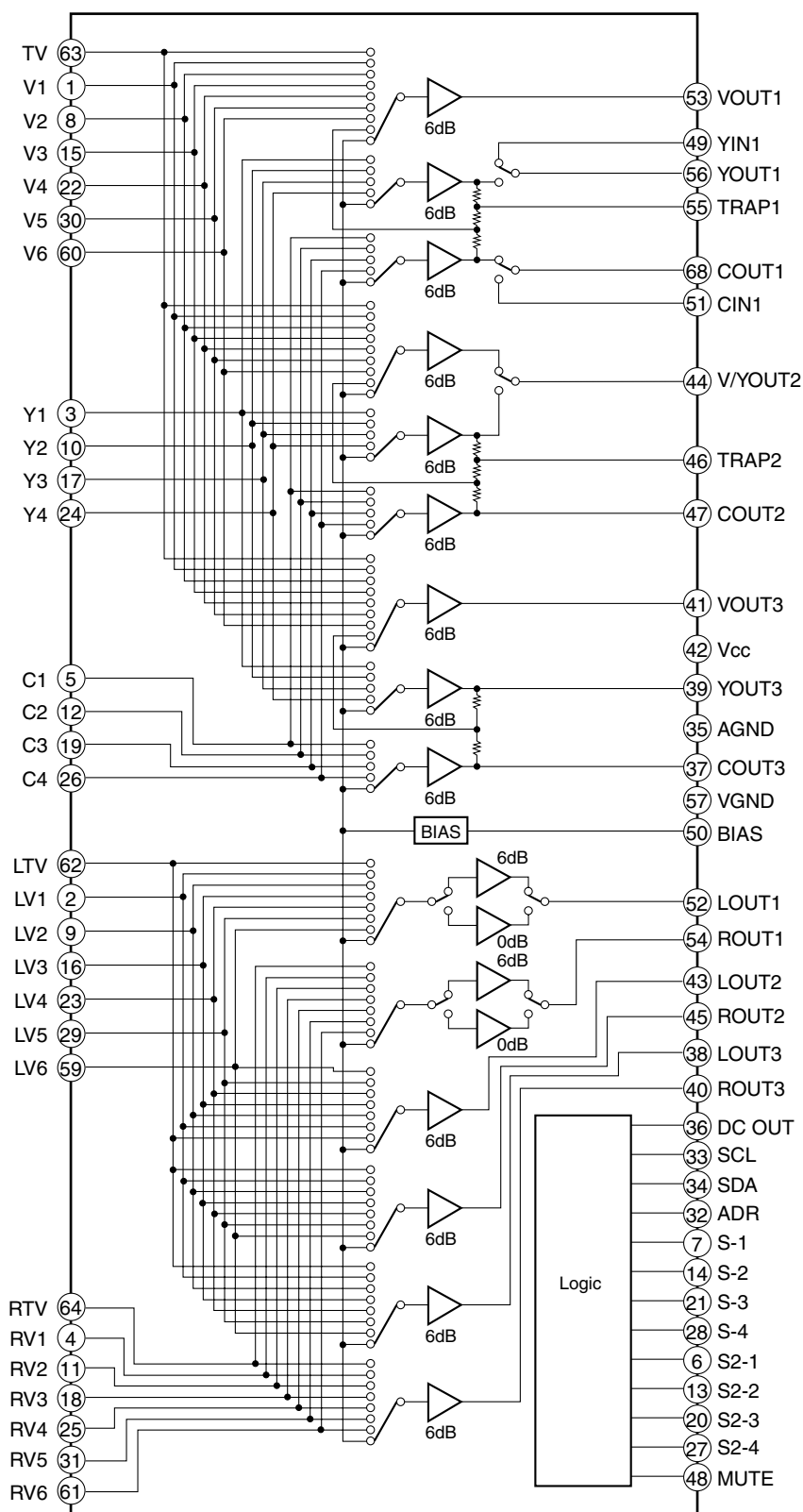
F

No.	Pin Name	I/O	Pin Function
46	D13	I	24-bit pixel bus input
47	D12	I	24-bit pixel bus input
48	PGND2	–	PLL analog ground
49	PVCC2	–	Analog power supply for filter PLL (3.3V)
50	D11	I	24-bit / 12-bit pixel bus input
51	D10	I	24-bit / 12-bit pixel bus input
52	D9	I	24-bit / 12-bit pixel bus input
53	D8	I	24-bit / 12-bit pixel bus input
54	D7	I	24-bit / 12-bit pixel bus input
55	D6	I	24-bit / 12-bit pixel bus input
56	IDCK-	I	Data clock - input
57	IDCK+	I	Data clock + input
58	D5	I	24-bit / 12-bit pixel bus input
59	D4	I	24-bit / 12-bit pixel bus input
60	D3	I	24-bit / 12-bit pixel bus input
61	D2	I	24-bit / 12-bit pixel bus input
62	D1	I	24-bit / 12-bit pixel bus input
63	D0	I	24-bit / 12-bit pixel bus input
64	GND	–	Digital ground

■ CXA2069Q (AV BOARD ASSY : IC8002)

• 7-Input 3-Output Audio/Video Switch

● Block Diagram



● Pin Function

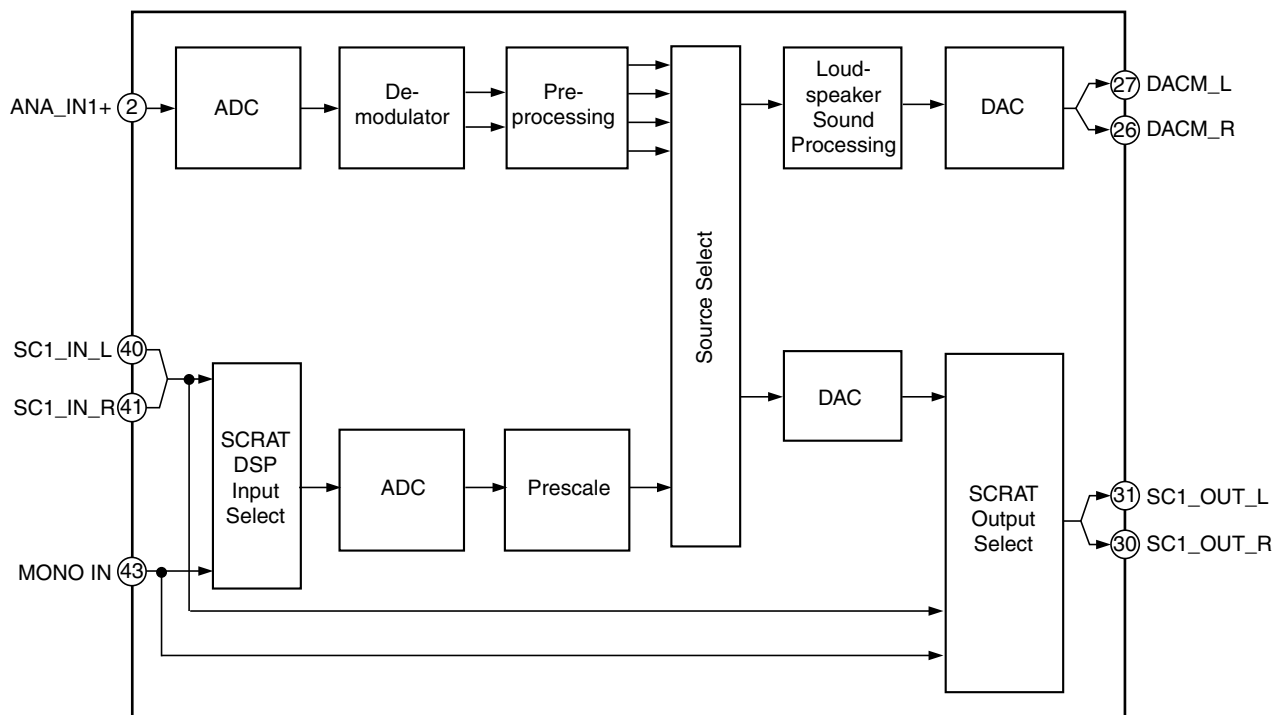
No.	Pin Name	I/O	Pin Function
63 1 8 15 22 30 60	TV V1 V2 V3 V4 V5 V6	I	Video signal inputs. Input composite video signals.
3 10 17 24 49	Y1 Y2 Y3 Y4 YIN1	I	Y/C separation signal inputs. Input luminance signals. The YIN1 pin inputs the signal obtained by Y/C separating the VOUT1 pin output.
5 12 19 26 51	C1 C2 C3 C4 CIN1	I	Y/C separation signal inputs. Input chrominance signals. The CIN1 pin inputs the signal obtained by Y/C separating the VOUT1 pin output.
62, 2 9, 16 23, 29 59, 64 4, 11 18, 25 31, 61	LTV, LV1 LV2, LV3 LV4, LV5 LV6, RTV RV1, RV2 RV3, RV4 RV5, RV6	I	Audio signal inputs.
53 41	VOUT1 VOUT3	O	Video signal outputs. Output composite video signals.
44	V/YOUT2	O	Video signal output. Either composite video signal output or luminance signal output can be selected by I2C bus control.
56 39	YOUT1 YOUT3	O	Video signal outputs. Output luminance signals.
58 47 37	COUT1 COUT2 COUT3	O	Video signal outputs. Output chrominance signals.
52 43 38 54 45 40	LOUT1 LOUT2 LOUT3 ROUT1 ROUT2 ROUT3	O	Audio signal outputs. Zo=50 ohm (within DC ± 2mA)
6 13 20 27	S2-1 S2-2 S2-3 S2-4	—	Detects the S2-compatible DC superimposed onto the C signal. 4 : 3 video signal at 1.3 V or less 4 : 3 letter-box signal at 1.3 V or more to 2.5 V or less 16 : 9 picture squeezed signal at 2.5 V or more This pin is pulled down to GND by a 100 k ohm resistor, so the 4 : 3 video signal is selected when open.

No.	Pin Name	I/O	Pin Function										
7 14 21 28	S-1 S-2 S-3 S-4	—	Composite video/S selector. The detection results are written to the status register. S signal at 3.5 V or less. Composite video signal at 3.5 V or more. This pin is pulled up to 5 V by a 100 k ohm resistor, so the composite video signal is selected when open.										
32	ADR	—	Selects the slave address for the I2C bus. 90H at 1.5 V or less 92H at 2.5 V or more 90H when open.										
33	SCL	I	I2C bus signal input VILmax=1.5 V VIHmin=3.0 V										
34	SDA	I	I2C bus signal input VILmax=1.5 V VIHmin=3.0 V VOLmax=0.4 V										
36	DC_OUT	O	Outputs the S2-compatible DC superimposed onto the COUT3 output. The DC is superimposed by connecting this pin to the COUT3 output via a capacitor. Control is performed by the I2C bus. When 0 V is output, Q1 is ON and the impedance is 5 k ohm. S2 protocol output impedance of 10 ± 3 k ohm is realized by attaching external resistance of 4.7 k ohm. <table><tr><td>DC_OUT (bus)</td><td>Output DC</td></tr><tr><td>0</td><td>4.5 V</td></tr><tr><td>1</td><td>0 V</td></tr><tr><td>2</td><td>1.9 V</td></tr><tr><td>3</td><td>4.5 V</td></tr></table>	DC_OUT (bus)	Output DC	0	4.5 V	1	0 V	2	1.9 V	3	4.5 V
DC_OUT (bus)	Output DC												
0	4.5 V												
1	0 V												
2	1.9 V												
3	4.5 V												
55 46	TRAP1 TRAP2	—	Connects trap circuit for subcarrier.										
48	MUTE	—	Audio signal output mute. Mute OFF at 1.5 V or less Mute ON at 2.5 V or more Mute OFF when open.										
50	BIAS	—	Internal reference bias (VCC/2). Connect to GND via a capacitor.										

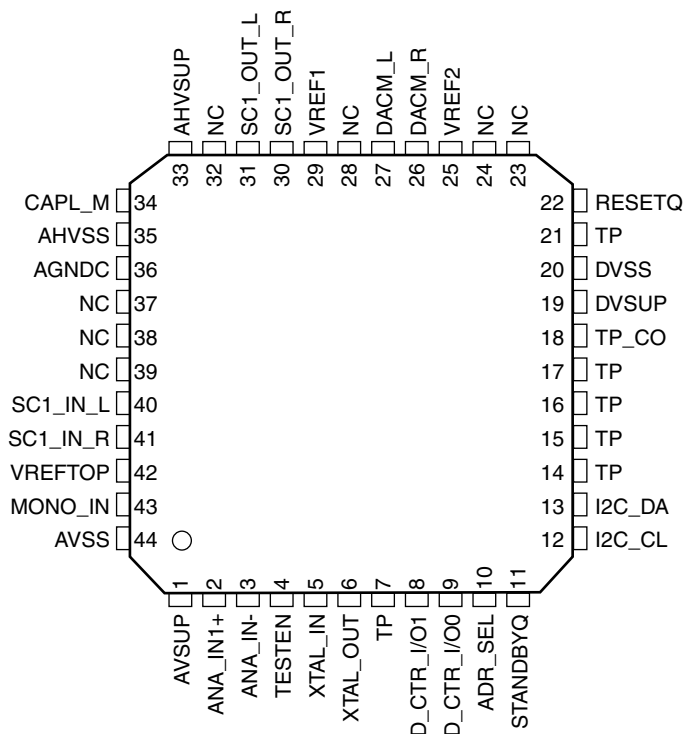
■ MSP3417G (AV BOARD ASSY : IC7502)

• Multisound Processor

● Block Diagram



● Pin Arrangement (Top view)



● Pin Function

NC = Not connected; leave vacant
 LV = if not used, leave vacant
 DVSS: if not used, connect to DVSS

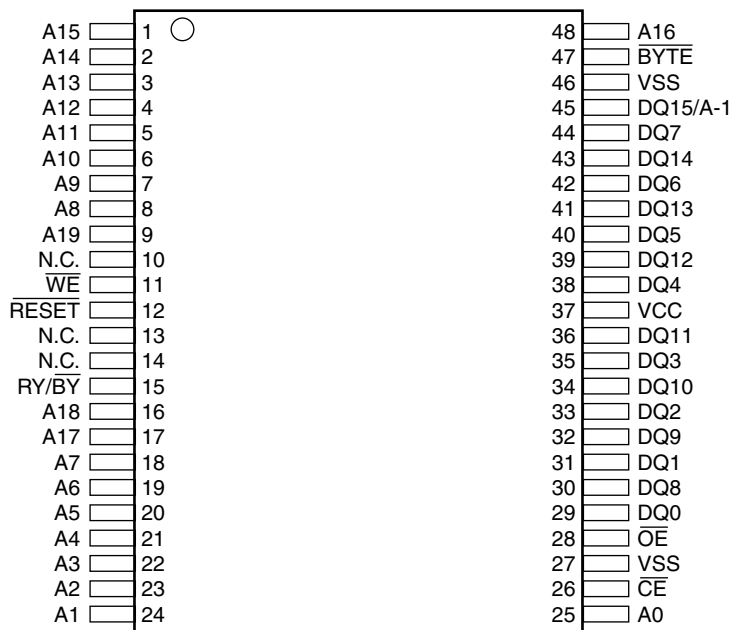
X = obligatory; connect as described in circuit diagram
 AHVSS: connect to AHVSS

No.	Pin Name	Type	Connection (it not used)	Description
1	AVSUP		X	Analog power supply +5V
2	ANA_IN1+	IN	LV	IF input1
3	ANA_IN-	IN	LV	IF common
4	TESTEN	IN	X	Test pin
5	XTAL_IN	IN	X	Crystal oscillator
6	XTAL_OUT	OUT	X	Crystal oscillator
7	TP		LV	Test pin
8	D_CTR_I/O_1	IN/OUT	LV	D_CTR_I/O_1
9	D_CTR_I/O_0	IN/OUT	LV	D_CTR_I/O_0
10	ADR_SEL	IN	X	I2C Bus address select
11	STANDBYQ	IN	X	Standby (low-active)
12	I2C_CL	IN/OUT	X	I2C clock
13	I2C_DA	IN/OUT	X	I2C data
14	TP		LV	Test pin
15	TP		LV	Test pin
16	TP		LV	Test pin
17	TP		LV	Test pin
18	TP_CO	OUT	LV	Test pin
19	DVSUP		X	Digital power supply +5V
20	DVSS		X	Digital ground
21	TP		LV	Test pin
22	RESETQ	IN	X	Power-on-reset
23	NC		LV	Not connected
24	NC		LV	Not connected
25	VREF2		X	Reference ground 2 high-voltage part
26	DACM_R	OUT	LV	Loudspeaker out, right
27	DACM_L	OUT	LV	Loudspeaker out, left
28	NC		LV	Not connected
29	VREF1		X	Reference ground 1 high-voltage part
30	SC1_OUT_R	OUT	LV	SCRAT 1 output, right
31	SC1_OUT_L	OUT	LV	SCRAT 1 output, left
32	NC		LV	Not connected
33	AHVSUP		X	Analog power supply + 8.0 V
34	CAPL_M		X	Volume capacitor MAIN
35	AHVSS		X	Analog ground
36	AGNDC		X	Analog reference voltage high-voltage part
37	NC		LV	Not connected
38	NC		LV	Not connected
39	NC		LV	Not connected
40	SC1_IN_L	IN	LV	SCRAT 1 input, left
41	SC1_IN_R	IN	LV	SCRAT 1 input, right
42	VREFTOP		X	Reference voltage IF A/D converter
43	MONO_IN	IN	LV	Mono input
44	AVSS		X	Analog ground

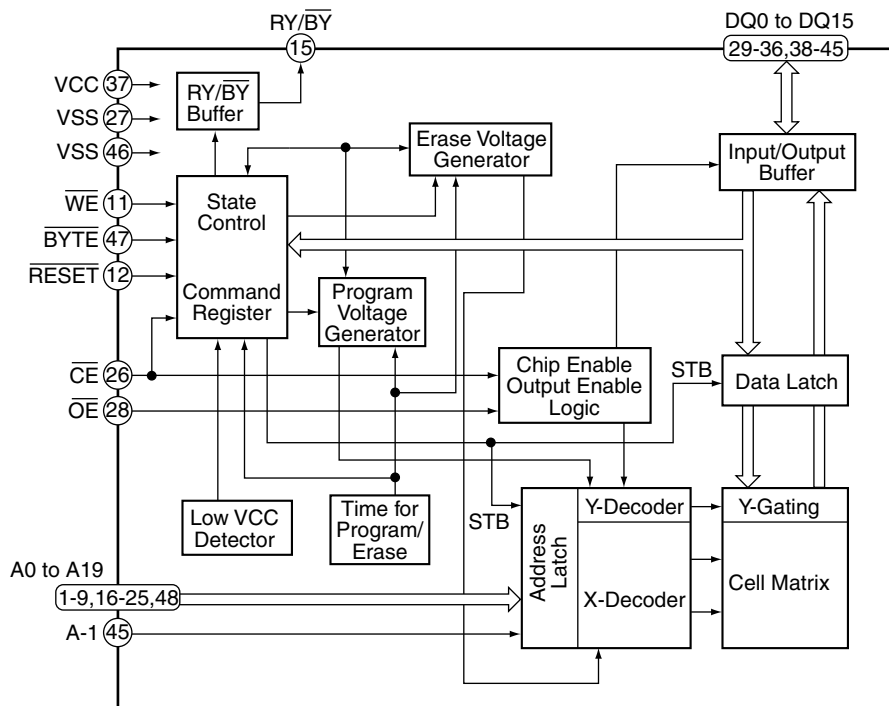
■ MBM29LV160TE-90PFTN (AV BOARD ASSY : IC9101)

- 16Mbit Flash Memory

● Pin Arrangement (Top view)



● Block Diagram



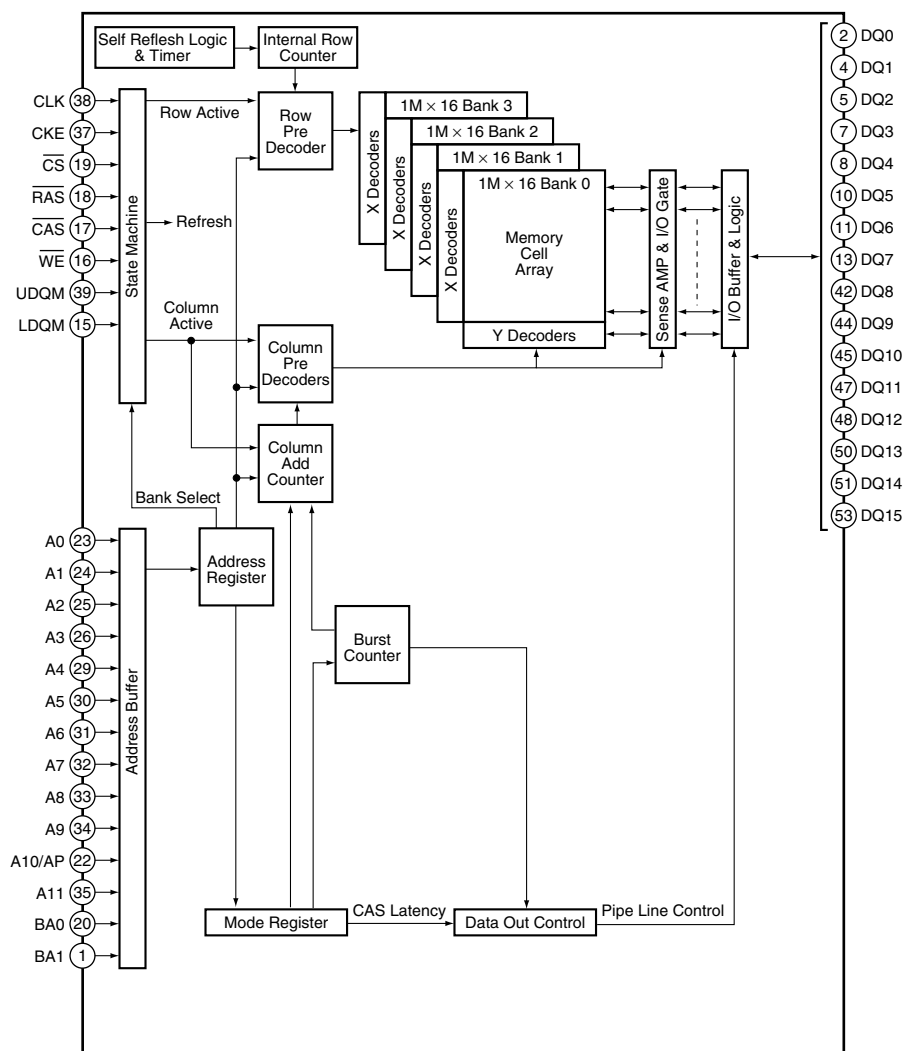
● Pin Function

No.	Pin Name	I/O	Pin Function
1	A15	I	Address input
2	A14	I	Address input
3	A13	I	Address input
4	A12	I	Address input
5	A11	I	Address input
6	A10	I	Address input
7	A9	I	Address input
8	A8	I	Address input
9	A19	I	Address input
10	N.C.	–	Pin not connected internally
11	$\overline{\text{WE}}$	I	Write enable
12	$\overline{\text{RESET}}$	I	Hardware reset pin / Temporary sector unprotection
13	N.C.	–	Pin not connected internally
14	N.C.	–	Pin not connected internally
15	$\text{RY}/\overline{\text{BY}}$	O	Ready/Busy output
16	A18	I	Address input
17	A17	I	Address input
18	A7	I	Address input
19	A6	I	Address input
20	A5	I	Address input
21	A4	I	Address input
22	A3	I	Address input
23	A2	I	Address input
24	A1	I	Address input
25	A0	I	Address input
26	$\overline{\text{CE}}$	I	Chip enable
27	VSS	–	Ground
28	$\overline{\text{OE}}$	I	Output enable
29	DQ0	I/O	Data input/output
30	DQ8	I/O	Data input/output
31	DQ1	I/O	Data input/output
32	DQ9	I/O	Data input/output
33	DQ2	I/O	Data input/output
34	DQ10	I/O	Data input/output
35	DQ3	I/O	Data input/output
36	DQ11	I/O	Data input/output
37	VCC	–	Power supply
38	DQ4	I/O	Data input/output
39	DQ12	I/O	Data input/output
40	DQ5	I/O	Data input/output
41	DQ13	I/O	Data input/output
42	DQ6	I/O	Data input/output
43	DQ14	I/O	Data input/output
44	DQ7	I/O	Data input/output
45	DQ15/A-1	I/O	Data input/output
46	VSS	–	Ground
47	$\overline{\text{BYTE}}$	I	Selects 8-bit or 16-bit mode
48	A16	I	Address input

■ HY57V641620HGT-7 (AV BOARD ASSY : IC9104)

• 64M bit (4M × 16) Synchronous DRAM

● Block Diagram



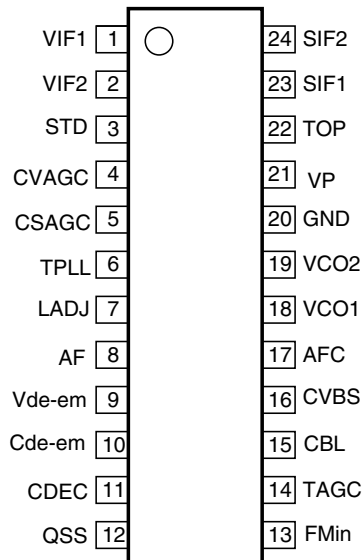
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	28	VSS	–	Ground
2	DQ0	I/O	Data input/output	29	A4	I	Address input
3	VDDQ	–	Power supply for output buffer	30	A5	I	Address input
4	DQ1	I/O	Data input/output	31	A6	I	Address input
5	DQ2	I/O	Data input/output	32	A7	I	Address input
6	VSSQ	–	Ground for output buffer	33	A8	I	Address input
7	DQ3	I/O	Data input/output	34	A9	I	Address input
8	DQ4	I/O	Data input/output	35	A11	I	Address input
9	VDDQ	–	Power supply for output buffer	36	NC	–	No connection
10	DQ5	I/O	Data input/output	37	CKE	I	Clock enable
11	DQ6	I/O	Data input/output	38	CLK	I	Clock input
12	VSSQ	–	Ground for output buffer	39	UDQM	I/O	Data input/output mask
13	DQ7	I/O	Data input/output	40	NC	–	No connection
14	VDD	–	Power supply	41	VSS	–	Ground
15	LDQM	I/O	Data input/output mask	42	DQ8	I/O	Data input/output
16	/WE	I	Write enable	43	VDDQ	–	Power supply for output buffer
17	/CAS	I	Column address strobe	44	DQ9	I/O	Data input/output
18	/RAS	I	Row address strobe	45	DQ10	I/O	Data input/output
19	/CS	I	Chip select	46	VSSQ	–	Ground for output buffer
20	BA0	I	Bank address input	47	DQ11	I/O	Data input/output
21	BA1	I	Bank address input	48	DQ12	I/O	Data input/output
22	A10/AP	I	Address input	49	VDDQ	–	Power supply for output buffer
23	A0	I	Address input	50	DQ13	I/O	Data input/output
24	A1	I	Address input	51	DQ14	I/O	Data input/output
25	A2	I	Address input	52	VSSQ	–	Ground for output buffer
26	A3	I	Address input	53	DQ15	I/O	Data input/output
27	VDD	–	Power supply	54	VSS	–	Ground

■ TDA9818TS (AV BOARD ASSY : IC7501)

- Single/multistandard VIF/SIF-PLL and FM-PLL/AM Demodulators

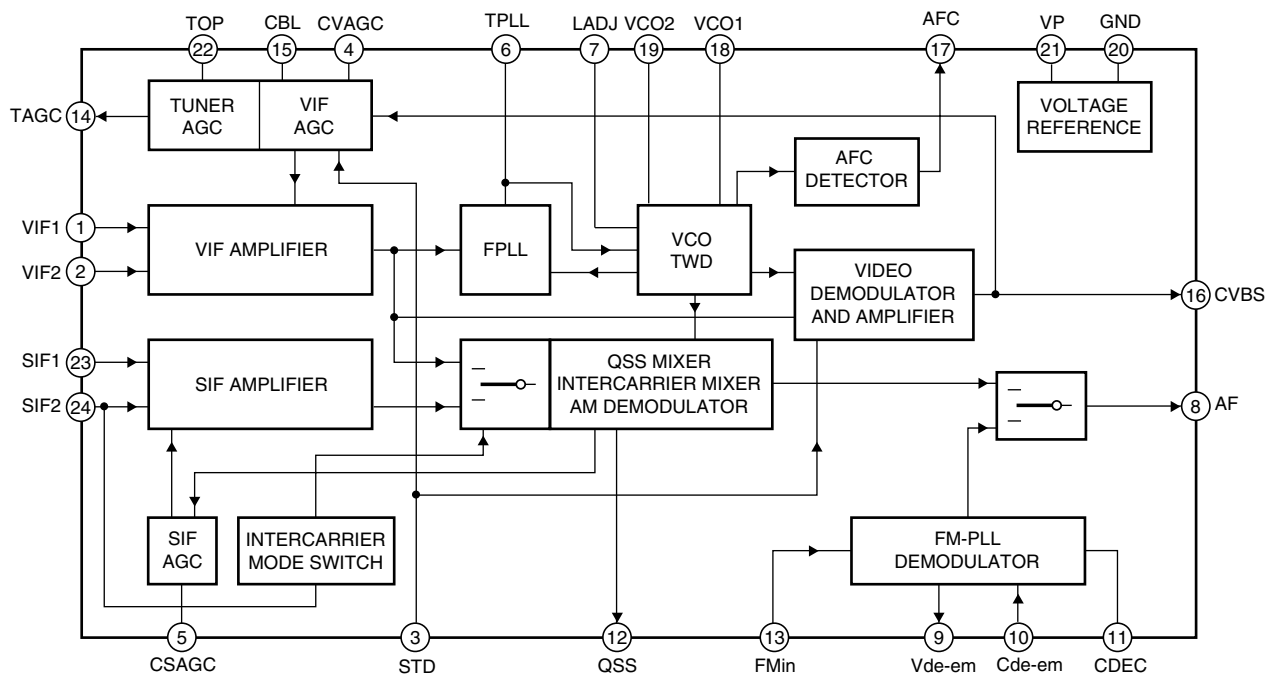
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	VIF1	VIF differential input signal voltage 1
2	VIF2	VIF differential input signal voltage 2
3	STD	Standard selection switch
4	CVAGC	VIF AGC capacitor
5	CSAGC	SIF AGC capacitor
6	TPLL	PLL filter
7	LADJ	L/L accent switch and adjust
8	AF	Audio output
9	Vde-em	De-emphasis output
10	Cde-em	De-emphasis input
11	CDEC	Decoupling capacitor
12	QSS	Single reference QSS/intercarrier output voltage
13	FMin	Sound intercarrier input voltage
14	TAGC	Tuner AGC output
15	CBL	Black level detector
16	CVBS	Composite video output voltage
17	AFC	AFC output
18	VCO1	VCO1 resonance circuit
19	VCO2	VCO2 resonance circuit
20	GND	Ground
21	VP	Supply voltage
22	TOP	Tuner AGC takeover point adjust
23	SIF1	SIF differential input signal voltage 1
24	SIF2	SIF differential input signal voltage 2

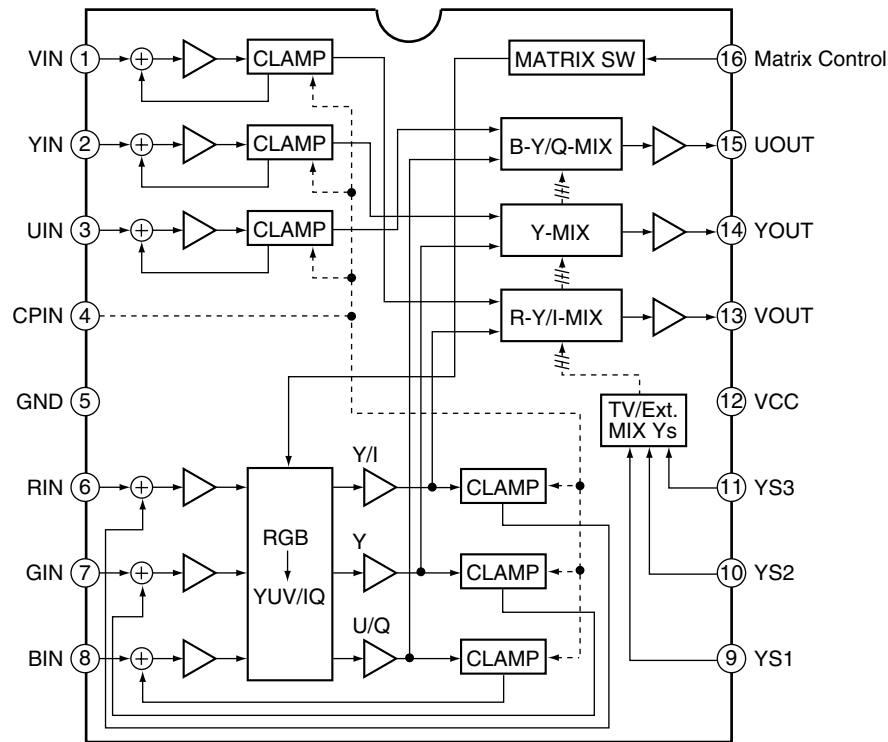
● Block Diagram



■ TA1287FG (AV BOARD ASSY : IC8906)

• RGB to YUV/IQ High-speed Matrix IC

● Block Diagram



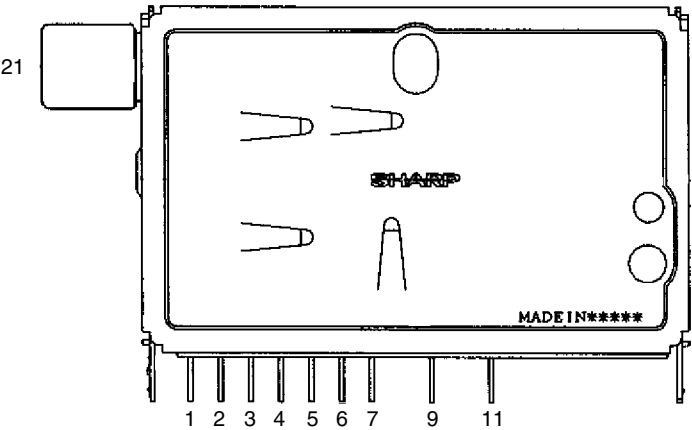
● Pin Function

No.	Pin Name	I/O	Pin Function
1	VIN	I	Input R-Y (V) or R signal through a clamping capacitor.
2	YIN	I	Input Y or G signal through a clamping capacitor.
3	UIN	I	Input B-Y (U) or B signal through a clamping capacitor.
4	CPIN	I	Input clamping pulse. Threshold: 0.75V
5	GND	—	Ground
6	RIN	I	Input R or R-Y (V) signal through a clamping capacitor.
7	GIN	I	Input G or Y signal through a clamping capacitor.
8	BIN	I	Input B or B-Y (U) signal through a clamping capacitor.
9	YS1	I	Select to switch mixing ratio. Threshold: 0.75V
10	YS2	I	Select to switch mixing ratio. Threshold: 0.75V
11	YS3	I	Select to switch mixing ratio. Threshold: 0.75V
12	VCC	—	Power supply 9V
13	VOUT	O	Output R-Y (V) or R signal.
14	YOUT	O	Output Y or G signal.
15	UOUT	O	Output B-Y (U) or B signal.
16	Matrix Control	I	This pin's voltage control the matrix coefficient for output signals. Selects the output mode.

■ AXF1119 (AV BOARD ASSY : U7501)

• TV Tuner

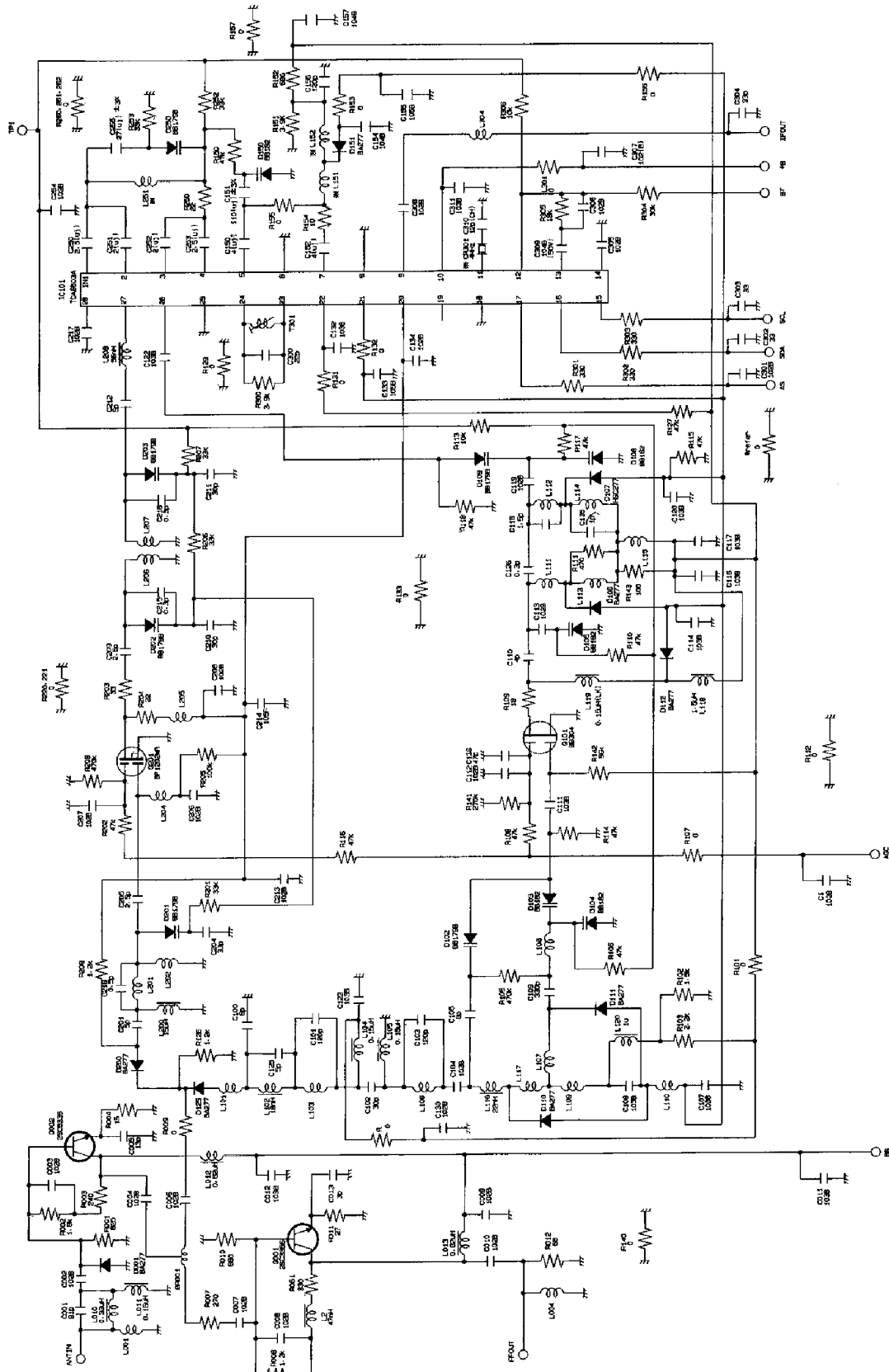
● Pin Arrangement



● Pin Function

No.	Pin Name
1	AGC
2	BB (5V)
3	AS
4	SCL
5	SDA
6	NC
7	+B (5V)
8	-
9	BT (31V)
10	-
11	IF OUT
21	ANT IN

● Schematic Diagram

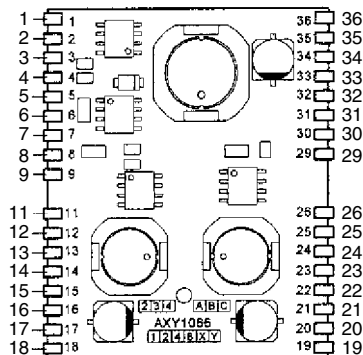


* Bond fixed implementation parts(4 places)

■ **AXY1066 (REG ASSY : U8502)**

• DC-DC Converter Unit

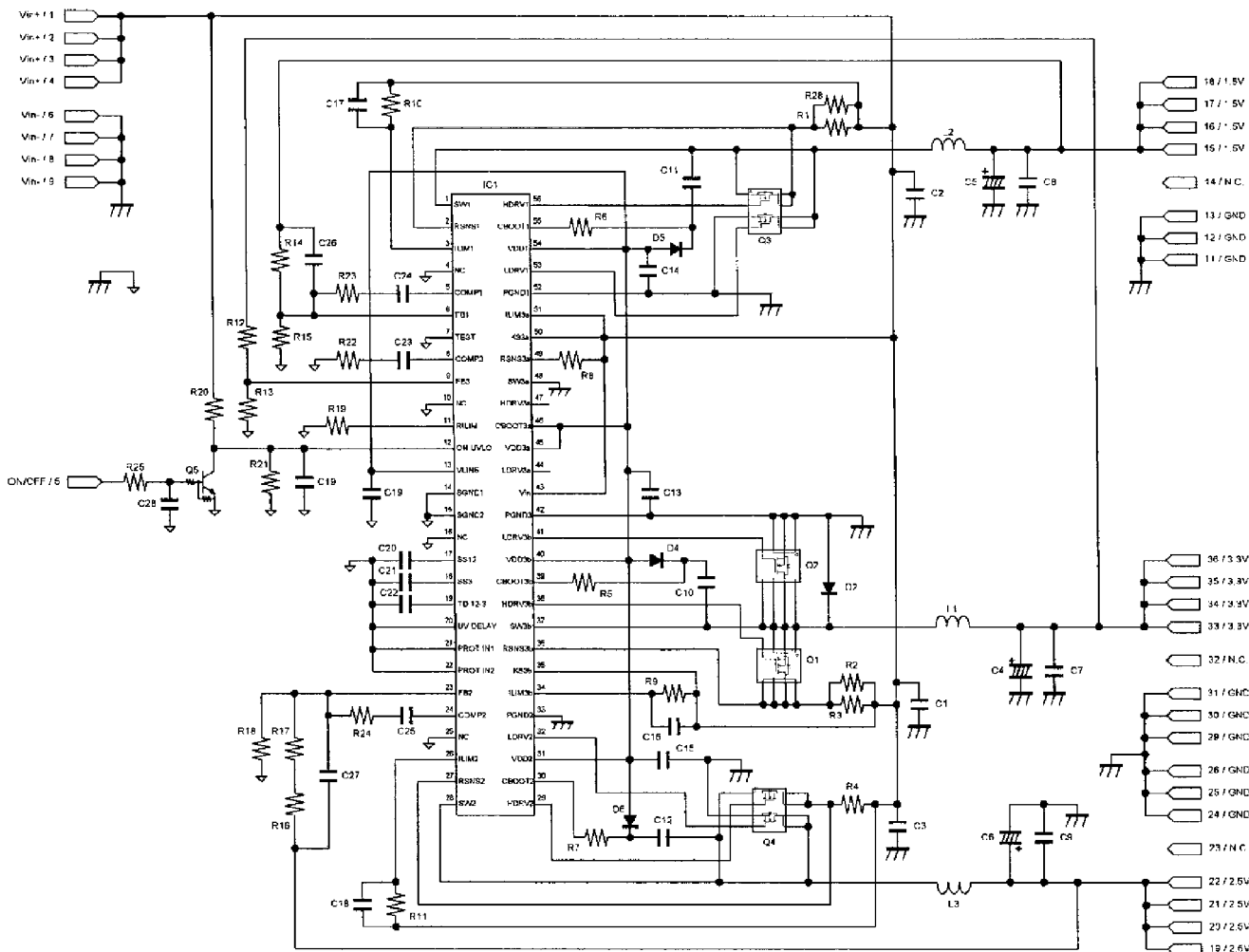
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function	No.	Pin Name	Pin Function
1	Vin	12V input	19	Vo2	2.5V input
2	Vin	12V input	20	Vo2	2.5V input
3	Vin	12V input	21	Vo2	2.5V input
4	Vin	12V input	22	Vo2	2.5V input
5	ON/OFF	Output ON/OFF	23	N.C.	No connection
6	GND	Ground	24	GND	Ground
7	GND	Ground	25	GND	Ground
8	GND	Ground	26	GND	Ground
9	GND	Ground			
11	GND	Ground	29	GND	Ground
12	GND	Ground	30	GND	Ground
13	GND	Ground	31	GND	Ground
14	N.C.	No connection	32	N.C.	No connection
15	Vo3	1.5V output	33	Vo1	3.3V output
16	Vo3	1.5V output	34	Vo1	3.3V output
17	Vo3	1.5V output	35	Vo1	3.3V output
18	Vo3	1.5V output	36	Vo1	3.3V output

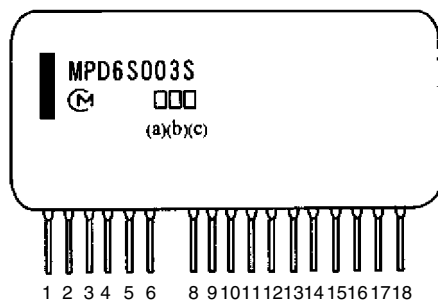
● Schematic Diagram



■ AXY1070 (REG ASSY : U8510)

• DC-DC Converter Unit

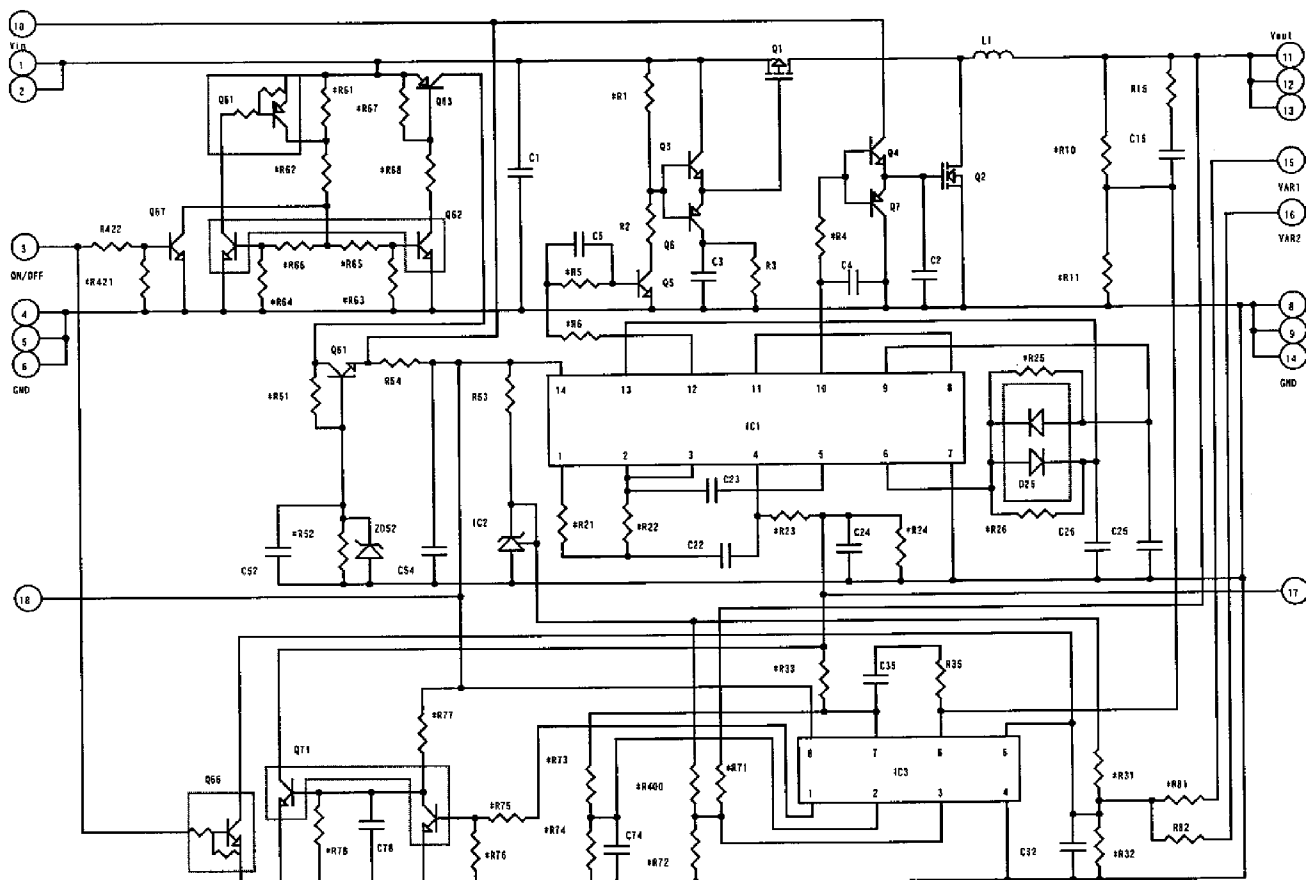
● Pin Arrangement



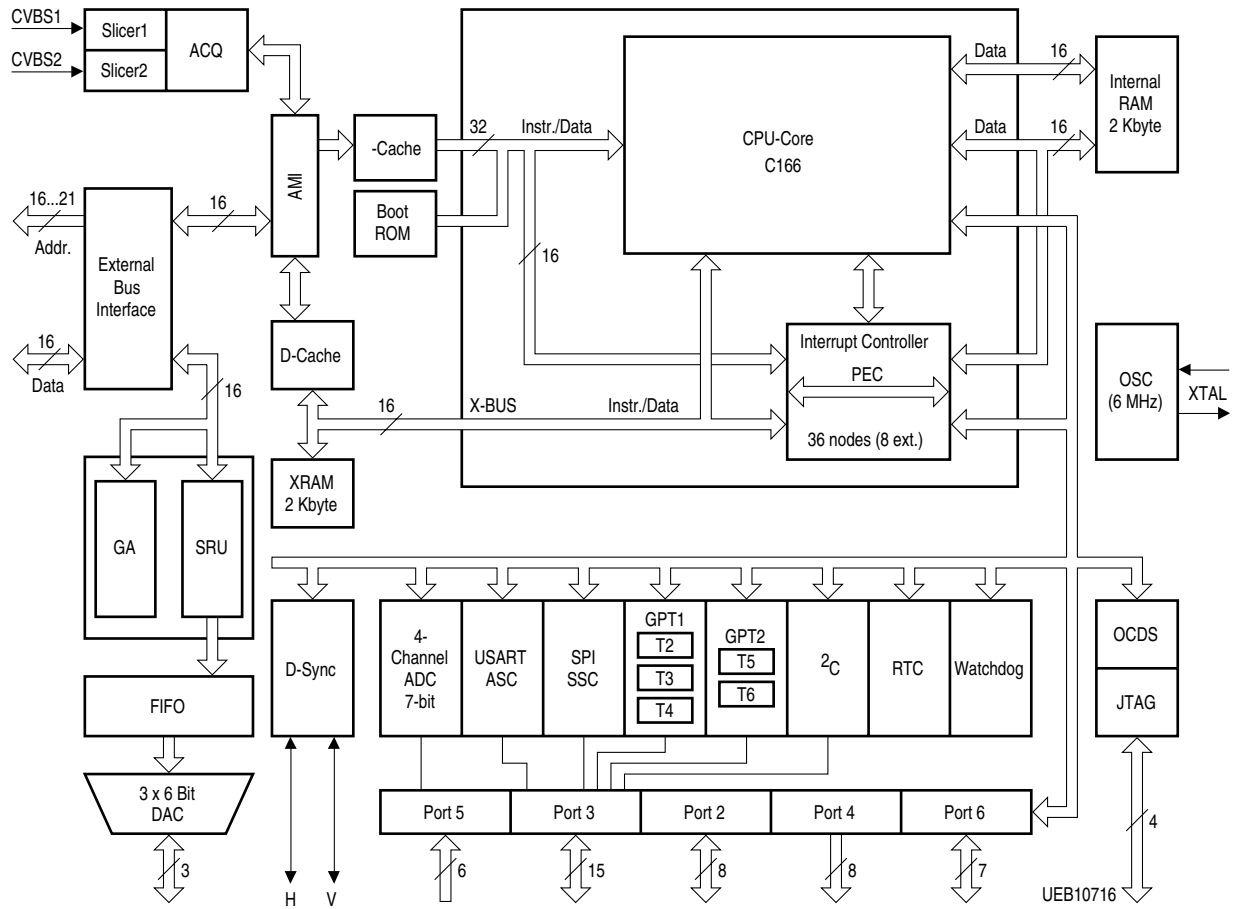
● Pin Function

No.	Pin Name	Pin Function
1	Vin	Voltage input
2	Vin	Voltage input
3	ON/OFF	Output ON/OFF
4	GND	Ground
5	GND	Ground
6	GND	Ground
8	GND	Ground
9	GND	Ground
10	N.C.	No connection
11	Vout	Voltage output
12	Vout	Voltage output
13	Vout	Voltage output
14	GND	Ground
15	VAR1	
16	VAR2	
17	N.C.	No connection
18	N.C.	No connection

● Schematic Diagram



● Block Diagram



● Pin Function

No.	Pin Name	Second Function	I/O	Pin Function
1	TCK	–	I	Clock for JTAG interface
2	TMS	–	I	Control signal for JTAG interface
3	TDI	–	I	Data input for JTAG interface
4	TDO	–	O	Data output for JTAG interface
5	P2.8	EX0IN	I/O	General purpose I/O port/External interrupt 0
6	P2.9	EX1IN	I/O	General purpose I/O port/External interrupt 1
7	P2.10	EX2IN	I/O	General purpose I/O port/External interrupt 2
8	P2.11	EX3IN	I/O	General purpose I/O port/External interrupt 3
9	P2.12	EX4IN	I/O	General purpose I/O port/External interrupt 4
10	P2.13	EX5IN	I/O	General purpose I/O port/External interrupt 5
11	P2.14	EX6IN	I/O	General purpose I/O port/External interrupt 6
12	P2.15	EX7IN	I/O	General purpose I/O port/External interrupt 7
13	VSS33-1	–	–	Digital ground for pads
14	VDD33-1	–	–	Digital power (for pads) (3.3 V)
15	P4.5	CS3	O	General purpose output port/Chip select signal for second external static memory
16	P4.4	A20	O	General purpose output port/Address bit
17	P4.3	A19	O	General purpose output port/Address bit
18	P4.2	A18	O	General purpose output port/Address bit
19	P4.1	A17	O	General purpose output port/Address bit
20	VSS25-1	–	–	Digital ground (for digital core)
21	VDD25-1	–	–	Digital power (for digital core) (2.5 V)
22	P4.0	A16	O	General purpose output port/Address bit
23	A8	R8	O	Address bit/SDRAM address bit
24	A7	R7/C7	O	Address bit/SDRAM address bit
25	A9	R9	O	Address bit/SDRAM address bit
26	A6	R6/C6	O	Address bit/SDRAM address bit
27	A5	R5/C5	O	Address bit/SDRAM address bit
28	A10	R10	O	Address bit/SDRAM address bit
29	A11	R11	O	Address bit/SDRAM address bit
30	A12	R12	O	Address bit/SDRAM address bit
31	VSS33-2	–	–	Digital ground for pads
32	VDD33-2	–	–	Digital power (for pads) (3.3 V)
33	A4	R4/C4	O	Address bit/SDRAM address bit
34	A3	R3/C3	O	Address bit/SDRAM address bit
35	A2	R2/C2	O	Address bit/SDRAM address bit
36	A1	R1/C1	O	Address bit/SDRAM address bit
37	A0	R0/C0	O	Address bit (All addresses are word addresses)/SDRAM Address bit
38	A13	R13	O	Address bit/SDRAM address bit
39	A14	\overline{RAS}	O	Address bit/Row address strobe for SDRAM access
40	A15	\overline{CAS}	O	Address bit/Column address strobe for SDRAM access
41	VSS33-3	–	–	Digital ground for pads
42	VDD33-3	–	–	Digital power (for pads) (3.3 V)
43	MEMCLK	–	O	Clock for SDRAM
44	$\overline{CSSDRAM}$	–	O	Chip select signal for SDRAM device
45	CLKEN	–	O	Enable for memory clock
46	CSROM	–	O	Chip select signal for ROM device
47	\overline{RD}	–	O	External memory read strobe for ROM. \overline{RD} is activated for every external instruction or data read access.
48	UDQM	–	O	Write disable for high byte
49	LDQM	–	O	Write disable for low byte
50	\overline{WR}	–	O	Memory write strobe

No.	Pin Name	Second Function	I/O	Pin Function
51	D15	–	I/O	Data bit
52	VSS33-4	–	–	Digital ground for pads
53	VDD33-4	–	–	Digital power (for pads) (3.3 V)
54	D7	–	I/O	Data bit
55	D0	–	I/O	Data bit
56	D14	–	I/O	Data bit
57	D8	–	I/O	Data bit
58	D6	–	I/O	Data bit
59	D1	–	I/O	Data bit
60	VSS33-5	–	–	Digital ground for pads
61	VDD33-5	–	–	Digital power (for pads) (3.3 V)
62	D13	–	I/O	Data bit
63	D9	–	I/O	Data bit
64	D5	–	I/O	Data bit
65	D2	–	I/O	Data bit
66	D12	–	I/O	Data bit
67	D10	–	I/O	Data bit
68	VSS33-6	–	–	Digital ground for pads
69	VDD33-6	–	–	Digital power (for pads) (3.3 V)
70	D4	–	I/O	Data bit
71	D3	–	I/O	Data bit
72	D11	–	I/O	Data bit
73	RSTIN	–	I	Reset input pin
74	P3.0	SCL0	I/O	General purpose I/O port/I2C Bus clock line 0
75	P3.1	SDA0	I/O	General purpose I/O port/I2C Bus data line 0
76	P3.2	CAPIN	I/O	General purpose I/O port/GPT2 register CAPREL
77	P3.3	T3OUT	I/O	General purpose I/O port/GPT1 timer T3 toggle
78	P3.4	T3EUD	I/O	General purpose I/O port/GPT1 timer T3 ext. up/down
79	P3.5	T4IN	I/O	General purpose I/O port/GPT1 timer T4 input for count/gate/reload/capture
80	P3.6	T3IN	I/O	General purpose I/O port/GPT1 timer T3 count/gate input
81	P3.7	T2IN	I/O	General purpose I/O port/GPT1 timer T2 input for count/gate/reload/capture
82	P3.8	MRST	I/O	General purpose I/O port/SSC masterreceiver/slave-transmit I/O
83	P3.9	M TSR	I/O	General purpose I/O port/SSC mastertransmit/slave-receiver O/I
84	VSS33-7	–	–	Digital ground for pads
85	VDD33-7	–	–	Digital power (for pads) (3.3 V)
86	VSS25-2	–	–	Digital ground (for digital core)
87	VDD25-2	–	–	Digital power (for digital core) (2.5 V)
88	P3.10	TxD0	I/O	General purpose I/O port/ASC0 clock/data output
89	P3.11	RxD0	I/O	General purpose I/O port/ASC0 data input (asynchronous) or I/O (synchronous).
90	P3.12	–	I/O	General purpose I/O port
91	P3.13	SCLK	I/O	General purpose I/O port/SSC master clock output/slave clock input
92	P3.15	–	I/O	General purpose I/O port
93	P5.14	T4EUD	I/O	General purpose Input port/GPT1 timer T4 ext.up/down ctrl. input
94	P5.15	T2EUD	I/O	General purpose Input port/GPT1 timer T2 ext.up/down ctrl. input
95	P6.0	TRIG_IN	I/O	General purpose I/O port/Trigger input-signal for 'On Chip Debug System' (OCDS)
96	P6.1	TRIG_OUT	I/O	General purpose I/O port/Trigger outputsignal for 'On Chip Debug System' (OCDS)
97	P6.2	FIELD	I/O	General purpose I/O port/Field signal of field detection
98	P6.3	SCL1	I/O	General purpose I/O port/I2C bus clock line 1
99	P6.4	SDA1	I/O	General purpose I/O port/I2C bus data line 1
100	P6.5	–	I/O	General purpose I/O port

No.	Pin Name	Second Function	I/O	Pin Function
101	P6.6	SDA2	I/O	General purpose I/O port/I2C bus data line 2
102	VSYN	VCS	I/O	Vertical sync In/output/Composite sync output
103	HSYN	–	I/O	Horizontal sync In/output
104	COR	RSTOUT	O	Output for contrast reduction/Reset output
105	BLANK	CORBLA	O	Fast blanking signal/Three-level signal for contrast reduction + fast blanking
106	VDD33-8	–	–	Digital power (for pads) (3.3 V)
107	VSS33-8	–	–	Digital ground for pads
108	XTAL1	–	I	Input of the oscillator amplifier circuit
109	XTAL2	–	O	Output of the oscillator amplifier circuit
110	VSSA-1	–	–	Analog ground
111	VDDA-1	–	–	Analog power (for PLL and DAC) (2.5 V)
112	R	–	O	Analog output for red channel
113	G	–	O	Analog output for green channel
114	B	–	O	Analog output for blue channel
115	VSSA-2	–	–	Analog ground
116	VDDA-2	–	–	Analog power (for ADCs) (2.5 V)
117	CVBS2	–	I	CVBS signal inputs for WSS data slicing
118	VSSA-3	–	–	Analog ground
119	VDDA-3	–	–	Analog power (for ADCs) (2.5 V)
120	CVBS1B	–	I	Ground for CVBS1A (differential input)
121	CVBS1A	–	I	CVBS signal inputs for full service data slicing
122	VSSA-4	–	–	Analog ground
123	VDDA-4	–	–	Analog power (for ADCs) (2.5 V)
124	P5.0	AN.0	I	General purpose Input port/Analog input for A/D-converter
125	P5.1	AN.1	I	General purpose Input port/Analog input for A/D-converter
126	P5.2	AN.2	I	General purpose Input port/Analog input for A/D-converter
127	P5.3	AN.3	I	General purpose Input port/Analog input for A/D-converter
128	TMODE	–	I	Test mode pin

7.4 CLEANING

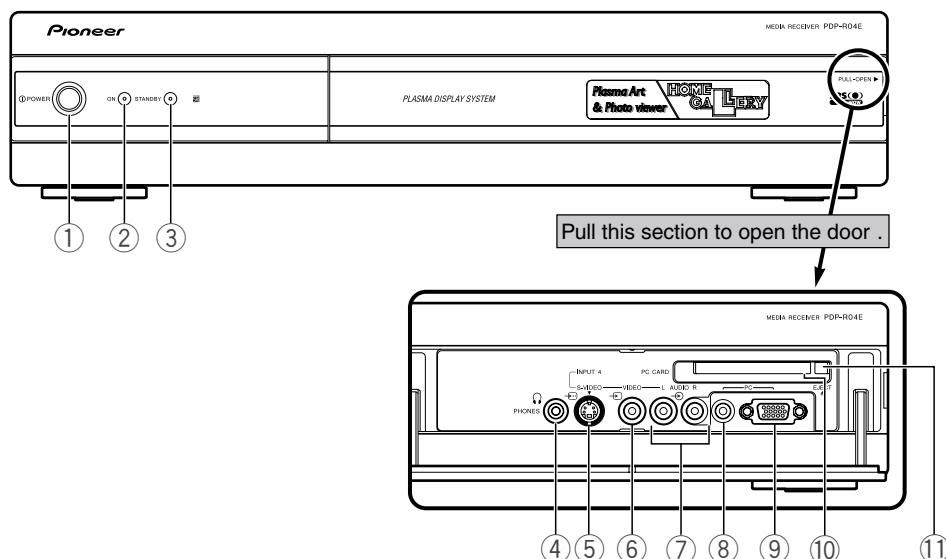


Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

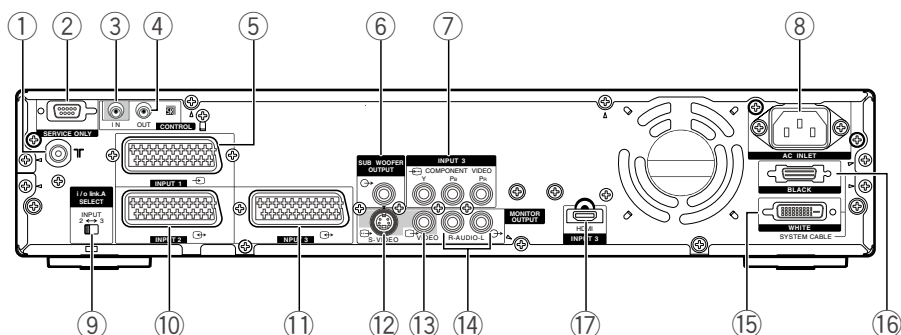
8. PANEL FACILITIES

Media Receiver Front view



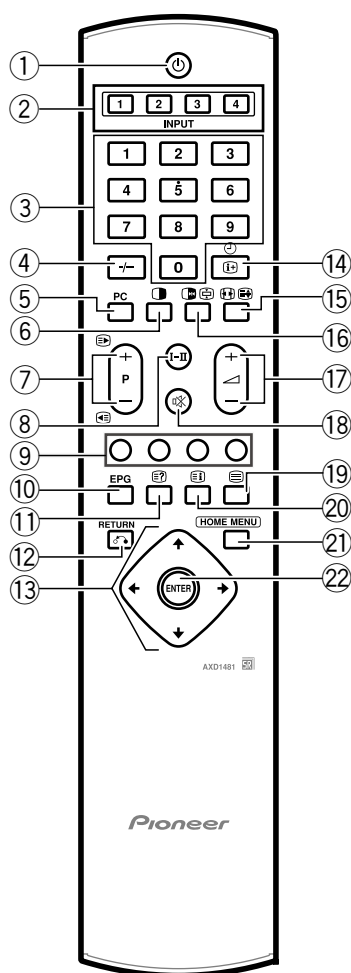
- | | |
|------------------------------|----------------------------------|
| ① POWER button | ⑥ INPUT 4 terminal (VIDEO) |
| ② POWER ON indicator | ⑦ INPUT 4 terminals (AUDIO) |
| ③ STANDBY indicator | ⑧ PC INPUT terminal (AUDIO) |
| ④ PHONES output terminal | ⑨ PC INPUT terminal (ANALOG RGB) |
| ⑤ INPUT 4 terminal (S-VIDEO) | ⑩ PC CARD slot |
| | ⑪ PC CARD eject button |

Rear view



- | | |
|---|----------------------------------|
| ① Antenna input terminal | ⑨ i/o link.A SELECT switch |
| ② RS-232C terminal (used in the factory setup) | ⑩ INPUT 2 terminal (SCART) |
| ③ Control input terminal | ⑪ INPUT 3 terminal (SCART) |
| ④ Control output terminal | ⑫ MONITOR OUT terminal (S-VIDEO) |
| ⑤ INPUT 1 terminal (SCART) | ⑬ MONITOR OUT terminal (VIDEO) |
| ⑥ SUB WOOFER OUTPUT terminal | ⑭ MONITOR OUT terminals (AUDIO) |
| ⑦ INPUT 3 COMPONENT VIDEO terminals (Y, PB, PR) | ⑮ SYSTEM CABLE terminal (WHITE) |
| ⑧ AC INLET terminal | ⑯ SYSTEM CABLE terminal (BLACK) |
| | ⑰ INPUT 3 HDMI terminal |

Remote control unit



- ① Places the system into the standby mode.
- ② INPUT 1, 2, 3, 4
Selects an input source.
- ③ 0 – 9
Switches on the power to the Plasma Display.
TV/External input mode: Selects a channel.
TELETEXT mode: Selects a page.
- ④ +/-
Selects the two digit mode.
- ⑤ PC
Selects the PC terminal as an input source.
- ⑥ Switches the screen mode among 2-screen, picture-in-picture, and single-screen.
- ⑦ P +/-
TV/External input mode: Selects a channel.

TELETEXT mode: Selects a page.

- ⑧ I-II
Sets the sound multiplex mode.
- ⑨ Colour (RED/GREEN/YELLOW/BLUE)
TELETEXT mode: Selects a page.
- ⑩ EPG
Displays the Electronic Programme Guide.
- ⑪ TELETEXT mode: Displays hidden characters.
- ⑫ (RETURN)
Restores the previous menu screen.
- ⑬
Selects a desired item on the setting screen.
- ⑭ Displays the channel information.
- ⑮ TV/External input mode: Changes the wide screen size.
 TELETEXT mode: Switches Teletext images. (full/upper half/lower half)
- ⑯ Freezes a frame from a moving image. Press again to cancel the function.
 TELETEXT mode: Stops updating Teletext pages. Press again to release the hold mode.
- ⑰ Sets the volume.
- ⑱ Mutes the sound.
- ⑲ Selects the TELETEXT mode. (all TV image, all TEXT image, TV/TEXT image)
- ⑳ TELETEXT mode: Displays an Index page for the CEEFAX/FLOF format. Displays a TOP Over View page for the TOP format.
- ㉑ HOME MENU
TV/External Input mode: Displays the Menu screen.
- ㉒ ENTER
Executes a command.

NOTE

- When using the remote control unit, point it at the Plasma Display.